DIRECT EXAMINATION - SCOTT L. ZEGER

5059 STATE OF MINNESOTA 1 DISTRICT COURT SECOND JUDICIAL DISTRICT 2 COUNTY OF RAMSEY _ _ _ _ _ _ _ _ 3 The State of Minnesota, 4 by Hubert H. Humphrey, III, 5 its attorney general, 6 7 and Blue Cross and Blue Shield 8 of Minnesota, 9 10 Plaintiffs, File No. C1-94-8565 11 vs. 12 Philip Morris Incorporated, R.J. 13 Reynolds Tobacco Company, Brown 14 & Williamson Tobacco Corporation, 15 B.A.T. Industries P.L.C., Lorillard Tobacco Company, The American 16 17 Tobacco Company, Liggett Group, Inc., The Council for Tobacco Research-U.S.A., 18 19 Inc., and The Tobacco Institute, Inc., 20 Defendants. 21 22 TRANSCRIPT OF PROCEEDINGS 23 VOLUME 26, PAGES 5059 - 5281 24 FEBRUARY 24, 1998 25 STIREWALT & ASSOCIATES P.O. BOX 18188, MINNEAPOLIS, MN 55418 1-800-553-1953 DIRECT EXAMINATION - SCOTT L. ZEGER 5060 PROCEEDINGS. 1 THE CLERK: All rise. Ramsey County Court 2 3 is now in session, the Honorable Kenneth J. Fitzpatrick presiding. 4 (Jury enters the courtroom.) 5 THE CLERK: Please be seated. 6 THE COURT: Good morning. 7 (Collective "Good morning.") 8 THE COURT: Counsel. 9 10 MR. HAMLIN: Thank you, Your Honor. 11 Good morning. (Collective "Good morning.") 12 13 SCOTT L. ZEGER 14 called as a witness, being previously 15 sworn, was examined and testified as 16 follows: 17 DIRECT EXAMINATION (cont'd) 18 BY MR. HAMLIN: 19 Q. Good morning, Mr. Zeger. A. Good morning, Tom.Q. At the close of the day, we were talking about 20 21 22 the steps in the core model. Could you just review 23 for us briefly what the core model is. 24 A. Yes. The core model was a simpler model 25 designed to make clear the steps involved in STIREWALT & ASSOCIATES P.O. BOX 18188, MINNEAPOLIS, MN 55418 1-800-553-1953 DIRECT EXAMINATION - SCOTT L. ZEGER calculating a smoking-attributable expenditure in the 2 refined -- core and refined models. 3 Q. Now was the first step to take the dollars spent

- 4 to treat people with smoking-attributable diseases
- 5 and total them?
- 6 A. Yes.
- 7 Q. And you then gave us an overview of the three
- 8 reductions which are on the Elmo; right?
- 9 A. That's correct.
- 10 Q. And at the close of the day you were discussing
- 11 an example, which is Trial Exhibit 30198, which is
- 12 now before the jury, the jury and the court; right?
- 13 A. That's correct.
- 14 Q. Can you come down and we'll continue with the
 - 5 example, with the court's permission.
- Before you begin, could you define for us what you mean by "smokers" in this example.
- 18 A. Yes. In this hypothetical example and in the
- 19 application of the core model to Minnesota, the
- 20 definition of smokers is a standard definition used
- 21 in most government surveys -- many government surveys
- 22 and in many research protocols, where the question is
- 23 asked whether you have ever smoked more than a
- 24 hundred cigarettes in your life, and if the answer is
- 25 yes, people are classified as a smoker, if the answer STIREWALT & ASSOCIATES
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- 1 is -- is no, it's a never smoker. So it's more than
- 2 100 cigarettes. And so for this hypothetical
- 3 example, that's what I meant yesterday when I defined
- 4 smokers and never smokers.
- 5 Q. Okay. Now could we place on the Elmo the first
- 6 reduction, which was there last night. And could you
- 7 just again review for us the first reduction, Dr.
- 8 Zeger.
- 9 A. Yes. If the jury recalls, I started the
- 10 discussion by saying what we do is we total all of
- 11 the expenditures for the persons in the hypothetical
- 12 example who have lung cancer, and there are 160
- people in this hypothetical example, so we would start with all of their expenditures, all of their
- 15 health-care expenditures. And what the first
- 16 reduction is intended to do is to set aside all
- 17 expenditures for persons who weren't smokers, so it
- 18 would be unfair to take all of the expenditures for
- 19 people with lung cancer because some of those people
- 20 weren't smokers. So what we need to know is the
- 21 percentage of persons among those that have lung
- 22 cancer that are smokers. Okay.
- 23 And we look at a table like this and we can see
- $24\,$ $\,$ that there are 160 people with lung cancer, 20 were
- 25 not smokers and 140 were. So if we need to calculate STIREWALT & ASSOCIATES
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- 1 the percentage that are smokers, that's what's shown
- 2 up on the Elmo, we take 140, which is the number of
- smokers, and we divide it by the total number of
- 4 persons with -- don't want to hit him (referring to
- 5 the witness's laser pointer with Mr. Hamlin walking
- 6 through its path) -- total number of persons with
- 8 the first reduction takes the total expenditures for

lung cancer, and that percentage is 87.5 percent. So

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9 persons who have lung cancer, but rather than taking
10 all of those expenditures, we take the proportion of
11 those expenditures that corresponds to the proportion
12 of smokers so that we don't take dollars for persons
13 who weren't smokers.
14 Q. To make that first reduction, do you need to
15 know who the individual smokers are?
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- 16 A. No. What we need to know is the proportion of 17 the total persons with lung cancer that were smokers, 18 and here it was that 140 out of 160.
- 19 It's like it is in that simple coin-tossing
 20 experiment. If we want to know the proportion of
 21 heads, we don't need to know which of the coins came
 22 up head and which of the coins came up tails, what we
 23 need to know is the proportion of heads out of the
 24 total number of tosses. And it's the same thing
- 25 here. We don't need to know exactly which of the STIREWALT & ASSOCIATES
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- individuals were smokers, but we need to have a
- 2 reliable estimate of the proportion of the lung 3 cancer patients that were smokers.
- 4 Q. Professor Zeger, do you have an exhibit that
- 5 illustrates the second reduction?
- 6 A. Yes, I do.
- 7 Q. Can I direct your attention to Trial Exhibit
- 8 30192. And is that the exhibit illustrating the
- 9 second reduction?
- 10 A. Yes, it is.
- 11 Q. And was this prepared at your direction?
- 12 A. Yes, it was.
- 13 MR. HAMLIN: Your Honor, plaintiffs offer
- 14 Trial Exhibit 30192 for illustrative purposes.
- MR. GARNICK: No objection.
- 16 THE COURT: Court will receive 30192 for
- 17 illustrative purposes.
- 18 BY MR. HAMLIN:
- 19 Q. Put that on the Elmo.
- 20 Professor Zeger, could you take us through the 21 second reduction.
- 22 A. Yes. So we -- what we've done now is we've
- 23 started with the total expenditures for these 160
- 24 people and we've reduced the expenditures by an
- 25 amount corresponding to the proportion of smokers so STIREWALT & ASSOCIATES
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- that we don't take dollars for non-smokers, but
- 2 that -- that's only the first reduction. Now we need
- 3 to make a second reduction, and the purpose of the
- 4 second reduction is to only take those persons who
- 5 are smokers and who have lung cancer whose lung
- 6 cancer was actually caused by their smoking. So the
- 7 second reduction is what percentage of smokers' lung
- 8 cancer is attributable to their smoking? And the
- 9 purpose of this reduction is to acknowledge the
- 10 possibility that one can get lung cancer even if 11 one's not a -- even if one is not a smoker. So among
- 12 the smokers there might well be persons who might
- 13 have gotten lung cancer even if they had not smoked.

14 So if we look at now the 140 smokers who got 15 lung cancer, we have to ask ourselves, of these 140 people, how many might have gotten lung cancer even 16 17 if they had not been a smoker? And there's information in this hypothetical table that will help 18 19 us determine that proportion. Because we have a group of non-smokers, okay, we have 5,000 non-smokers 20 21 just the way we have 5,000 smokers, and we did get 22 some lung cancer among the otherwise similar non-smokers. So if we ask the question how many of 23 the smokers might have gotten lung cancer even if 24 25 they had not smoked, a reasonable way to determine STIREWALT & ASSOCIATES P.O. BOX 18188, MINNEAPOLIS, MN 55418 1-800-553-1953 DIRECT EXAMINATION - SCOTT L. ZEGER 5066 that proportion is to look among the otherwise 1 similar non-smokers. And what do we see? We see 2. there were 20 lung cancers out of 5,000 people. So 3 4 what we do in the second proportion -- second reduction is we say since there were 20 out of 5,000 5 non-smokers -- non-smokers who got lung cancer, we 6 would expect about 20 out of 5,000 of the smokers to 7 8 have gotten lung cancer even if they had not smoked. 9 And that's what we mean by determining the proportion 10 that's actually attributable to their smoking. It's recognizing that it's possible to get lung cancer 11 even if you are not a smoker. Doesn't happen nearly 12 as often. You can see it's, in this hypothetical 13 14 example, seven times more likely to get lung cancer 15 if you are a smoker versus a never smoker, but it 16 isn't impossible. 17 So the purpose of the second reduction is to take the 140 smokers who have lung cancer and to reduce that number down to 120. And how do we get 19 20 120? Because we have the 140 smokers who have lung 21 cancer, but we saw that there were 20 among the otherwise similar never smokers who got lung cancer, 22 so we're going to assume that there are 20 here that 23 24 would have gotten lung cancer even if they hadn't 25 been smokers. And so the second reduction takes the STIREWALT & ASSOCIATES P.O. BOX 18188, MINNEAPOLIS, MN 55418 1-800-553-1953 DIRECT EXAMINATION - SCOTT L. ZEGER 140 smokers who have lung cancer and it compares --1 it looks at the rate of lung cancer among the never 2 smokers, that was 20 out of 5,000, and so it takes the rest of the people, 120, and it takes the ratio 4 5 120 over 140, or 85.7 percent, which is the size of the second reduction, which is the percentage of smokers' lung cancer that is attributable to smoking, 7 8 recognizing that some people who don't smoke can also get lung cancer. 9 10 And this is a standard -- standard calculation that is made in biostatistics and epidemiology, to 11 only take the proportion of disease among smokers 12 that we can attribute that's over and above what we 13 see in an otherwise similar group of never smokers. 14 15 Q. Professor Zeger, do you have an exhibit that illustrates the third reduction? 16 17 A. Yes, I do. 18 Q. Let me direct your attention now to Trial

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Exhibit 30193. Is that the exhibit that illustrates
20
    the third reduction?
21
    A. Yes, it is.
22
    Q. And was this prepared at your direction?
23
    A. Yes, it was.
24
              MR. HAMLIN: Your Honor, plaintiffs offer
25
    Trial Exhibit 30193 for illustrative purposes.
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              MR. GARNICK: No objection.
1
              THE COURT: Court will receive 30193 for
 2.
    illustrative purposes.
 3
 4
    BY MR. HAMLIN:
 5
    Q. I think, Professor Zeger, we have a board that
    we can put on the easel. Okay. On the Elmo we could
 6
    put the three reductions. Thank you.
7
    A. Okay. So this is now the last reduction. The
9
    first reduction was to set aside the non-smokers, the
    second reduction to set aside some lung cancer that
10
    might occur among smokers even if they had been
11
    non-smokers, and now the third reduction addresses
12
13
    the dollars expended to treat persons who have lung
14
    cancer.
15
         And the idea of the third reduction is the
    following: Thus far what we -- what we have are the
16
    total expenditures, all of the health-care
17
18
    expenditures for smokers whose disease is caused --
19
    whose lung cancer is caused by their smoking. We
20
    have all of the expenditures for them. But we
21
    recognize that even if these people didn't have lung
    cancer, their health-care expenditures wouldn't be
22
    zero. People go to the doctor, they have incidents
24
    that happen. Even if you don't have lung cancer, you
    have medical expenditures. So it would be unfair to
25
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    take all of the medical expenditures. We have to --
    we have to take only those medical expenditures that
 2.
    are the result of the lung cancer.
 3
 4
         So the third reduction says what dollar
 5
    percentage is attributable to the lung cancer caused
    by smoking? And so how do we go about doing that?
 6
7
    Well here is, again for a hypothetical example of
    10,000 Minnesotans, what we've done is hypothetically
9
    calculated the average medical expenditures for the
10
    patients with lung cancer, and that's $15,000.
11
    That's what it costs on average to treat a patient
    with lung cancer. But we have also in our population
12
13
    people who don't have any major smoking-caused
14
    disease, they don't have lung cancer or the other
15
    major smoking-caused diseases, and we can look and
16
    see what do we spend on those people in that they
17
    also have medical expenditures, and in this
    hypothetical example, it's 700 dollars.
18
19
         You can see what -- what is true is that it
20
    costs much more for medical expenditures if you have
21
    lung cancer than if you don't have any of these major
22
    diseases. Okay? So if we ask the question: Of the
23
    $15,000, how much of it is to treat other things that
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24 are unrelated to lung cancer? A reasonable place to
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- look is to look at how much we spend on people who STIREWALT & ASSOCIATES
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- 1 don't have lung cancer who are otherwise similar.
- And we can see that's 700. So we don't -- it would
- 3 be unfair to take all \$15,000. What is fair is to
- 4 take 15,000 less the 700, which we spend on people
- 5 who don't have lung cancer, or 14,300 in this
- 6 hypothetical example.
- 7 So how do we not take the 700 dollars? We
- 8 calculate a third proportion, a third percentage,
- 9 which is 14,300, the additional expenditures divided
- 10 by the total expenditures, and the percentage comes
- 11 out to be 95.3 percent. So the -- again, the purpose
- 12 of the third reduction is to set aside dollars that
- 13 are spent for health care that don't have anything to
- 14 do with the lung cancer and only to take those
- 15 dollars that are over and above what we see as being
- 16 spent by people who don't have lung cancer. And
- 17 that's the purpose of the third reduction.
- 18 Q. Now let me ask you about this lung cancer
- 19 example. Now the treatment cost is \$15,000 for lung
- 20 cancer; correct?
- 21 A. Correct.
- 22 Q. Okay. Now does that \$15,000 include payments
- 23 for costs -- excuse me, payments of cost for treating
- 24 conditions not caused by smoking, such as a broken
- 25 leg?

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- 1 A. Yes, it may well, because these are the total
- 2 expenditures for a person who has lung cancer.
- 3 Q. Do we count all the dollars spent for the
- 4 treatment of broken legs as smoking-attributable
- 5 expenditures?
- 6 A. No. That -- that's the whole idea of the third
- 7 reduction. We don't want to take money for any
- 8 conditions that don't have anything to do with lung
- 9 cancer, and the way to avoid taking that money is to
- 10 look to see what the expenditures are for persons who
- 11 don't have lung cancer, because if it's not related
- to lung cancer, they'll also be having conditions,
- 13 broken bones, for example, and also those dollars
- 14 will be in here. So when we subtract away the 700
- 15 dollars from the 15,000, we're setting aside dollars
- 16 that are not attributable to the lung cancer.
- 17 Q. Is there any way for the dollars spent for
- 18 broken bones to stay in the smoking-attributable
- 19 expenditures after the third reduction?
- 20 A. Well there is one possibility, and that is if --
- 21 if -- I think Dr. Samet has indicated to us that it's
- 22 possible in lung cancer to have a bone cancer that
- 23 comes as a result of the lung cancer, and then very
- fragile bones that might break, might break more often, for example. So if -- if -- if it is

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- possible, and Dr. Samet has indicated to us that it
- 2 is, that broken bones might happen more frequently as
- 3 a result of the lung cancer, then that money would be
- 4 left in, because that wouldn't be happening to these
- 5 people down here who don't have lung cancer. But the
- 6 ones that will be taken out are just those sort of
- 7 accidental breaks which will occur both to people
- 8 with lung cancer and to people without lung cancers.
- 9 And so when you subtract away, you remove those --
- 10 those breaks.

1

- 11 Q. Professor Zeger, do you have an exhibit that
- 12 illustrates how the three reductions work in this
- 13 hypothetical example to calculate a
- 14 smoking-attributable expenditure?
- 15 And let me direct your attention to Trial
- 16 Exhibit 30190. Is that the exhibit?
- 17 A. Yes.
- 18 Q. Okay. And was that prepared by you?
- 19 A. Yes.
- 20 MR. HAMLIN: Your Honor, plaintiffs offer
- 21 Trial Exhibit 30190 for illustrative purposes.
- MR. GARNICK: No objection.
- 23 THE COURT: Court will receive 30190 for
- 24 illustrative purposes.
- 25 BY MR. HAMLIN:

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- 1 Q. I'm now placing the exhibit on the easel. Can
- 2 you explain to the jury what is on this exhibit.
- 3 A. What this exhibit shows is the expenditures
- 4 which are attributable to smoking for this
- 5 hypothetical population of 10,000 Minnesotans who
- 6 have lung cancer, and it -- it shows the application 7 of the three reductions.
- 8 So let's go over here to the left-hand side.
- 9 Remember, we had 160 people with lung cancer, and if
- 10 we went through all of the medical records in this
- 11 hypothetical population we would have identified, we
- 12 said, \$15,000 on average, \$15,000 per person to treat
- 13 their lung cancer. And so the math is right, I'm
- 14 pretty sure. If you take 160 people times \$15,000
- 15 per person, it comes out to be 2.4 million dollars.
- 16 So that's the amount of expenditures we would have
- 17 identified for these 160 people with lung cancer.
- 18 And what this chart now shows is the application of
- 19 the three reductions in order to get -- in order to
- 20 start with total expenditures and end up with
- 21 expenditures at the other side which are actually
- 22 attributable to their smoking.
- 23 So the first reduction is applied as follows:
- 24 We start with 2.4 million dollars, which is the total
- 25 dollars expended for this population -- for these

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- 1 people with lung cancer, and we say what percentage
- of the lung cancer patients are smokers? Remember,
- 3 there are some smokers among the 160, and we want to
- 4 set them aside. We don't want dollars for them.

```
Excuse me, there are some non-smokers -- excuse me,
    please let me correct myself -- there are some
 6
    non-smokers among this group, and we don't want
 7
    dollars for the non-smokers. So we say what
    percentage of the lung cancer patients are smokers?
9
10
    And if you remember, it was 140 out of 160 were
     smokers, which was 87.5 percent. So we start with
11
12
     the 2.4 million and we reduce it down to 87.5
     percent. And here is the information about the
13
    non-smokers, here's the expenditures for the
14
    non-smokers that's being set aside, and here's the
15
     information -- here's the dollars for the smokers
17
     that's being retained.
18
          Okay? Then we go to the second reduction. And
19
     the second reduction says what percentage of the
2.0
     smokers' lung cancer is actually caused by their
21
     smoking? Remember, we -- we recognized that there is
22
    the possibility of lung cancer -- rare, but there's
23
    the possibility of lung cancer even among
24
    non-smokers. So if that's true, it may be possible
25
    that some of the smokers would have gotten lung
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 1
    cancer even if they had not smoked, and it wouldn't
    be fair to attribute those cases to the smoking. So
    we start with this -- these dollars, the total
 3
    dollars expended for smokers, and we reduce it a
 5
     second time. And what we're doing is we're setting
    aside some fraction, some proportion -- some
 6
 7
    percentage of the dollars that corresponds to people
 8
    who would likely have gotten their lung cancer even
     if they had not smoked, and that was 85.7 percent.
9
          Okay? So this white part of the bar is the
10
11
     percentage that we think might have gotten lung
     cancer even if they had not smoked, and the blue part
     is the part that -- is the part of the expenditures
13
     that corres -- that is actually caused by the
14
15
     smoking, what we say is caused by the smoking. Okay.
     So that gets us through the second reduction.
17
          And now the final reduction is what dollar
     percentage is attributable to the lung cancer? And
18
19
     remember, the idea here is that even if you have lung
2.0
     cancer, there's some of the medical expenditures
21
    which have to do with conditions that -- that aren't
22
    caused by the lung cancer. You trip one day and you
23
    have a broken bone and your bones weren't in any way
24
    compromised by the lung cancer, so those dollars
     should not be included. So we take the average
25
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 1
     expenditures for persons who have lung cancer and we
    reduce that by the dollars we see spent for people
     who don't have lung cancer, and that -- this is the
 3
     dollars that's being is set aside. Because,
     remember, there was 700 dollars spent on average if
 5
 6
    you didn't have lung cancer, and 14,300 more if you
 7
    did, and so this reduction percentage is 95.3
 8 percent. And so if we start over here on the left
    side with 2.4 million, apply the three reduction
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- 10 percentages, we end up with the total dollars which
- 11 are actually attributable to the smoking, and that's
- 12 71.5 percent of the total dollars, or 1.7 million
- 13 dollars.
- 14 Q. Professor Zeger, what is the basic purpose of
- 15 the three reductions?
- 16 A. What the three reductions do is they take the
- 17 information which is available from the claims data,
- 18 and here, 2.4 million dollars, those are the total
- 19 expenditures, and it sets aside the dollars that
- 20 correspond to non-smokers, it sets aside the dollars
- 21 that correspond to disease that wasn't caused by the
- 22 smoking, and it sets aside the dollars that would
- 23 have been expended anyway even if you hadn't had lung
- 24 cancer, and it creates at the other end, it -- it --
- 25 it calculates at the other end the dollars that are STIREWALT & ASSOCIATES
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- 1 attributable to smoking.
- Q. Now the example illustrates how the three
- 3 reductions work in the core model. Are the three
- 4 reductions used in the refined model?
- 5 A. Yes. This is the part of what we do in the
 - refined model, these calculations, over and over.
- 7 Q. Now you showed us how the core model works in
- 8 this hypothetical -- hypothetical example of 10,000
- 9 Minnesotans. How do you use the core model to
- 10 estimate smoking-attributable expenditures for the
- 11 state and Blue Cross?
- 12 A. Well this was just a hypothetical example to
- 13 illustrate how the core model works. What we do is
- 14 we now go and get the actual Minnesota claims data,
- 15 and instead of using hypothetical numbers here, we
- 16 use the actual numbers for the more than 90,000
- 17 Minnesotans who had one of these major
- 18 smoking-attributable diseases, and we then do these
- 19 steps with those individuals, those individual
- 20 expenditures.
- 21 Q. Well what are the steps in the core model for
- 22 estimating a smoking-attributable expenditure with
- 23 real data from the state of Minnesota and Blue Cross
- 24 Blue Shield?
- 25 And if you could illustrate those steps on the STIREWALT & ASSOCIATES
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- 1 chart.
- 2 A. So what I'm going to do just briefly is lay out
- 3 how that approach is used with the Minnesota data to
- 4 calculate the smoking-attributable expenditures in
- 5 the core model. So we're going to apply the ideas in
- 6 the core model to the Minnesota data. So let me just 7 write down the key steps.
- 8 So the first thing we do is we go to the
- 9 Minnesota claims data and we find the people who have
- 10 a major smoking-attributable disease, the ones that
- 11 were identified by Dr. Samet. So we identify the
- 12 people with a major smoking-attributable disease.
- 13 hope you don't mind if I abbreviate that MSAD, just
- 14 to save space on the chart. And how do we do that?

We go to the Minnesota claims data. And remember, 16 there were a total of something like 280 million 17 records that were processed to build this database of 18 Minnesota claims, and we find all of the cases where somebody had a major smoking-attributable disease. 19 20 That's the first step. And then the other information which is 21 22 available to us is the person's gender, a man or a woman, and -- and their age, and both of these are on 23 24 the Minnesota claims data, and what we do is we break our calculations down into a few subgroups based 25 STIREWALT & ASSOCIATES P.O. BOX 18188, MINNEAPOLIS, MN 55418 1-800-553-1953 DIRECT EXAMINATION - SCOTT L. ZEGER 5079 1 upon -- we do -- do the calculations separately for men and women and for two age categories, and I can 2. show you that in just a minute. 3 So now we have all the people who have major 5 smoking-attributable diseases, like lung cancer, we have the person's gender and their age, and then what 6 we do is we calculate the total expenditures, total 7 dollars that were expended, actually expended by the 8 9 state or by Blue Cross and Blue Shield to treat all of the -- to treat these people who had a major 10 11 smoking-attributable disease, and those dollars are available to us in the claims records by just 12 totaling up all of the expenditures for a particular 13 person. We do that for all of the people. 14 15 So now what we have at this point is we have the 16 total expenditures for people with particular 17 disease, and we know their age and their gender. So 18 it's now like we're at the left side of that last chart; that's all the expenditures. 19 Okay. Now what we have to do is we have to 2.0 apply the reductions. Okay? So the next step is to 21 apply the first reduction, and the first reduction 23 asks the question what percentage of these persons we found in the Minnesota claims, what percentage of 24 2.5 them are smokers? They have -- these people have STIREWALT & ASSOCIATES P.O. BOX 18188, MINNEAPOLIS, MN 55418 1-800-553-1953 DIRECT EXAMINATION - SCOTT L. ZEGER 1 lung cancer, for example, and now we need to know what percentage of them are smokers. And to get that 2. information we turn to the National Medical 3 Expenditure Survey, which is that large national 5 survey that provides information to us about smoking, disease, and expenditures. And so we can look there 6 7 to see of lung cancer patients, what fraction, 8 what -- what percentage are smokers, and that's the -- that's where we -- we get the percentage here, 9 10 and that's the percentage we apply to the total 11 dollars for Minnesota. 12 The next step is to apply the second reduction. 13 After the first reduction, we've set aside the non-smokers. Okay. So the second reduction says 14 even among smokers, what -- what proportion of the 15 16 disease was actually caused by their smoking? So 17 what percentage of smokers' disease is attributable 18 to their smoking? And to estimate that quantity, we 19 use the National Medical Expenditure Survey data as

21 And now there's one more reduction to make, the 22 third reduction. Remember, the third reduction says 23 what dollar percentage of all the medical expenditures for a person who has lung cancer, what 24 25 proportion of those dollars, what percentage of those STIREWALT & ASSOCIATES P.O. BOX 18188, MINNEAPOLIS, MN 55418 1-800-553-1953 DIRECT EXAMINATION - SCOTT L. ZEGER dollars is actually for treatment of the lung cancer or things related to the lung cancer? And the third reduction, we can calculate that from the Minnesota 3 claims data, because in the claims data, remember, we 5 know who has lung cancer and who doesn't, and we know 6 how much dollars -- how many dollars were spent on people with lung cancer and how many dollars were 7 spent on people with not -- without, and that's the 8 9 basis of the information we need to make the third 10 reduction. So this is the -- these are the steps to apply the core model to calculate 11 smoking-attributable expenditures here in Minnesota. 12 Let me just quickly review. We identify the 13 14 people with the major smoking-attributable disease using the 280 million Minnesota claims records, we 15 16 also get their gender and age from the claims 17 records, and then we calculate the total dollars actually expended by the state or by Blue Cross Blue 18 19 Shield to treat these people who have one of these diseases. These are the actual dollars spent to 20 21 treat the people who have one of these diseases. But 22 that wouldn't be a fair estimate of the dollars 23 caused by their smoking, so we have to reduce those dollars three times. The first two reductions, the 24 information we need comes from the National Medical 2.5 STIREWALT & ASSOCIATES P.O. BOX 18188, MINNEAPOLIS, MN 55418 1-800-553-1953 DIRECT EXAMINATION - SCOTT L. ZEGER 5082 Expenditure Survey, and the third reduction, the information comes again from the Minnesota claims records, and that's how we apply the core model to 3 Minnesota. 4 5 Q. Thank you, Professor Zeger. You can now return 6 to the stand. 7 What statistical methods are used in the core 8 model? 9 A. Well there are two main methods we're focusing 10 on. The first is a method that we call stratification. It's a big word but quite a simple 11 12 idea. We got the gender and age for all of these 13 Minnesotans who had one of these diseases caused by 14 smoking, and when we do the calculations, when we do 15 the application of the three reductions, we do that separately for women, separate from men, and younger 17 people, younger women separate from older women, 18 younger men separate from older men, and that --19 that -- that strategy is called stratification. We've broken the total persons into subgroups that --20 21 that are more similar to one another. And the reason 22 for stratification is so that when we talk about 23 reductions, for example the second reduction, what proportion of the disease is actually caused by the

```
smoking, we're actually comparing the rates of
25
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    disease among smokers and non-smokers and we're --
    and we're comparing people that are otherwise
    similar, they're of a similar age and a similar
    gender. So it's -- it's in order to -- to compare
4
    like with like to the extent possible.
5
         And then the second method that's in the
6
7
    application of the model is a method called
    attributable risk. You may have heard about that
8
    before from Dr. Samet. Attributable risk is just a
9
    way -- or attributable proportion is just a way to
10
```

- take the total health-care burden and calculate the burden of disease that's caused by smoking. And
- actually the first two reductions taken together is a
- 14 standard method of epidemiology and biostatistics
- 15 called attributable risk, attributable proportion
- 16 sometimes called.
- 17 Q. Now with respect to stratification, you said
- 18 that you compare like to like. Is that in order to
- 19 isolate any difference that you want to measure
- 20 between these two groups?
- 21 A. Yes. Remember we were looking at the number of
- 22 people who had lung cancer among the smokers and the
- 23 number of people who had lung cancer among the never
- 24 smokers when we were trying to figure out how much of
- 25 the smokers' cancer was actually caused by their STIREWALT & ASSOCIATES
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- 1 smoking. That was when we were looking at the second
 - reduction. And if we were comparing, you know, very
- 3 old smokers with very young never smokers, that
- 4 wouldn't be fair because age is also a factor in --
- 5 in when you get a disease. So you want to compare
- 6 smokers and non-smokers who are otherwise similar.
- 7 Q. Now are these statistical methods; that is,
- 8 stratification and attributable risk, common and
- 9 standard in biostatistics and epidemiology?
- 10 A. Yes. They're the --
- Of the things we teach, you know, new students,
- 12 health professionals learning biostatistics, these
- 13 would be two of the things we teach them very early
- 14 in an introductory course. So these are standard
- 15 methods that are used over and over in public health.
- 16 Q. Did you calculate smoking-attributable
- expenditures for the core model?
- 18 A. Yes.
- 19 Q. And did you prepare an exhibit of the
- 20 expenditures for the state of Minnesota for lung
- 21 cancer and COPD?
- 22 A. Yes, I did.
- 23 Q. Can you turn to Trial Exhibit 30184. Do you
- 24 have that exhibit, professor?
- 25 A. I do.

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```
And is that exhibit illustrating the core
    estimate of expenditures for the state of Minnesota
 2.
    for lung cancer and COPD?
 3
    A. Yes, it does.
 5
    Q. Was this prepared by you?
 6
    Α.
        Yes.
              MR. HAMLIN: Your Honor, we offer Trial
7
 8
    Exhibit 30184 for illustrative purposes.
              MR. GARNICK: No objection.
9
10
              THE COURT: Court will receive 30184 for
11
    illustrative purposes.
12
    BY MR. HAMLIN:
    Q. Professor Zeger, I'm placing the exhibit on the
13
14
    easel, and again, with the court's permission, I'd
15
    ask you to come down and tell us what is on this
16
    exhibit.
17
    A. On the flip chart, I had just listed the steps
18
    we have to go through, and what we did is we applied
19
    those steps to all of the expenditures by the state
20
    of Minnesota for the treatment of Minnesotans who had
21
    lung cancer or COPD, which as you recall were two of
    the -- two of the diseases Dr. Samet identified as
22
    being caused by smoking. And so as I indicated, we
23
24
    took the total expenditures for persons with lung
25
    cancer or COPD and we broke the people into four
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    groups of -- subgroups of people: the women who were
    35 to 64, the older women, the men who were 35 to 64,
 2.
    and the older men. And then we went through the
 3
    steps that I showed you separately for each of these
    four subgroups. And sometimes we call this
 5
    stratification, and these groups are sometimes called
 6
7
    strata, and that's where the word "stratification"
 8
    comes from.
         So then what we did is we simply applied the
9
    three reduction percentages to the dollars separately
10
11
    in each of the groups. And I -- I can go through
    that now for one of them.
13
         Let's start with the women 35 to 64 years old.
    Remember, we take the Minnesota claims data, we find
14
    all the women 35 to 64 years old who have a diagnosis
15
16
    of lung cancer or COPD, chronic obstructive pulmonary
17
    disease. That's by searching those 280 million
18
    records, we find all of these people. And then we
19
    total up their medical expenditures paid for by the
20
    state. And in this case there were 115.4 million
21
    dollars in the Minnesota claims data, the state's
22
    claims data, that was paid to persons -- to women 35
    to 64 who had lung cancer or COPD. So this is our
23
24
    starting point. These are the total expenditures.
25
         But remember, we need to reduce the total
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    expenditures three times to get the expenditures
 1
    which are fairly attributable to their smoking. So
 2
 3 we start with the 115 million, and we then ask what
 4 percentage of women 35 to 64 who have lung cancer or
    COPD, what percentage of them are smokers? And using
```

```
the National Medical Expenditure Survey, we estimate
 6
 7
     85.3 percent.
 8
     Q. Professor Zeger, you're pointing to a bar chart.
 9
    What -- what is that?
     A. Yes. If you -- if -- if you look at this small
10
11
     chart here, it's exactly the chart we looked at in
     the hypothetical example. It's -- it's showing the
12
13
     application of the three reduction percentages. So
     it's a little bit hard to see there, I know, but this
14
15
    first -- we start at a hundred percent, which
    corresponds to 115 million dollars, and we take 85.3
16
    percent, which is the size of that blue part of the
17
    first bar, leaving a -- leaving back about 15
18
19
     percent. Because from the National Medical
20
     Expenditure Survey, we estimate that among people --
21
    among women 35 to 64 who have lung cancer or COPD, 85
22
    percent of them are smokers.
23
         And then we go to the second reduction
24
    percentage. Remember, the second one says what
    percentage of smokers' disease is attributable to
25
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 1
     their smoking? So we go again to the National
    Medical Expenditure Survey and we compare the rates
     of lung cancer and COPD among women 35 to 64 years
 3
     old, we compare the rate among the smokers with the
 4
    never smokers, and we see the difference, and that
 5
 6
    difference gives us the second reduction, which
 7
    turned out in this case to be 83.5 percent. So we
    start with all the dollars, we set aside dollars for
 8
 9
    non-smokers, and now we've just set aside dollars for
     smokers that can't be attributed to their smoking
10
     that might have occurred anyway.
11
12
          And then we go to the final reduction. Remember
13
     the final reduction is what dollar percentage is
14
     attributable to lung cancer or COPD that's been
15
     caused by smoking? And that's comparing the average
16
     expenditures for people, for women 35 to 64 who have
17
     these diseases in the Minnesota claims data with
18
    women 35 to 64 years old who don't have these
    diseases, and we find that 78.7 percent of the total
19
20
     expenditures are actually attributable to the disease
     caused by smoking. And that's the final reduction,
2.1
22
     giving a total reduction of 56 percent.
23
         And so we start with 115 million dollars
24
     actually expended by the state to treat women 35 to
25
     64 who have lung cancer or COPD, those are the
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 1
     dollars actually expended and recorded in the
     records, and we take those dollars and we reduce
     those dollars by -- to 56 percent, or to 64 -- about
 3
     64.7 million dollars, and 64.7 are the
 5
     smoking-attributable expenditures.
 6
     Q.
         Would you take us through the other examples.
 7
    Α.
         Right.
          So that's for women 35 to 64. But we have three
 8
 9
    other subgroups of people. If we take the older
     women, there was a total of 80.5 million dollars
10
```

```
expended by the state on women who had lung cancer or
11
     COPD, women 65 and older, 80.5 million. And we go
12
13
     through the three reductions. We get the percentage
14
     of women 65 and older with this disease who are
     smokers, turns out to be 93.8 percent, we then get
15
16
     the proportion of those dollars which are
     attributable to their smoking. Remember, that
17
18
     compares the rate of lung cancer/COPD in women 65
19
     and older, the rate of these diseases in smokers and
20
    non-smokers, and we set -- excuse me, in -- in
     smokers and non-smokers, and we set aside those cases
21
    which might have occurred anyway, and then finally we
    reduce a third time to take only those dollars which
2.3
24
    are attributable to the disease that they have, and
25
    we get a total reduction proportion of 64.5 percent.
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    And so we apply 64.5 percent to the total dollars,
    80.5 million dollars, and we get smoking-attributable
     dollars which for this group of women is 51.9 million
 3
 4
     dollars.
 5
          And then for the men 35 to 64, 91 million
    dollars was actually in the claims records for
 6
 7
    persons who were diagnosed with lung cancer or COPD
    who were men 35 to 64 with lung cancer or COPD, and
 8
    there were 91 million dollars in the claims records.
 9
    We calculate the three reduction percentages, the
10
11
    first two from the National Medical Expenditure
12
     Survey, the third from the Minnesota claims data, and
     we get a total reduction percentage of 45.3 percent.
13
14
    That's the percentage of all the dollars which is
     attributable to their smoking. And so we -- we put
15
    in the smoking-attributable dollars, not all 91
16
17
     million, but 45 percent of the 91 million, or 41
18
     million dollars.
          And then finally for men 65 and above, the
19
    claims records identified a total of 55.7 million
20
2.1
    dollars expended to treat persons with lung cancer
    and COPD who were 65 and older men, and we go through
23
    the three reductions and we find that the percent of
    dollars attributable to their smoking is 58.9
24
25
    percent. So we don't include all the dollars
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                                                     5091
     expended for them, we include 58.9 percent of those
    dollars, or 32.8 million dollars. And so if you then
     ask what is the smoking-attributable expenditures for
 4
     the state to treat Minnesotans who had lung cancer or
 5
     COPD diagnosis, and the answer to that is 190.8
 6
     million dollars, and those are the smoking-
 7
     attributable expenditures.
 8
     Q. Now let -- let me ask you about the group of
     women 35 to 64 that are listed on this exhibit.
 9
10
    A. Yes.
         Now the percent of dollars attributable is 56
11
    Q.
12
    percent; correct?
13
    A. Correct.
```

Now among those women 35 to 64, are there

non-smokers?

14

15

Q.

- 16 A. Yes.
- 17 Q. Let's consider the non-smokers. Do you take 56
- 18 percent of their costs as smoking-attributable
- 19 expenditures?
- 20 A. No. That would be a misleading way to think
- 21 about what was being done here. What we do is we
- 22 take all of the dollars or nearly all of the dollars
- 23 for smokers and none of the dollars for non-smokers,
- 24 and when -- when you do that, you end up with -- that
- 25 contributes to getting a rate of 56.0 percent.

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- 1 Q. And you pointed to the first bar chart.
- 2 A. Yes.
- 3 Q. Is that the first reduction?
- 4 A. The first reduction is actually where we set
- aside the dollars for non-smokers. That's the
- 6 purpose of the first reduction.
- 7 Q. Let me ask you this: Suppose that there are
- 8 women in this group of women 35 to 64 who are smokers
- 9 and who have lung cancer and cirrhosis of the liver.
- 10 A. Uh-huh.
- 11 Q. Assume that cirrhosis of the liver is not caused
- 12 by smoking.
- 13 A. Uh-huh.
- 14 Q. Does the core model include as part of its
- 15 smoking-attributable expenditures 56 percent of this
- 16 group's treatment costs for cirrhosis?
- 17 A. No. Again that's misleading. That's -- that's
- 18 not what it does. What the purpose of the third
- 19 reduction is, remember, the third reduction set aside
- 20 dollars for -- for -- expended that had not --
- 21 nothing to do with the lung cancer or COPD, so that
- 22 by using the third reduction we're setting aside
- 23 those dollars for cirrhosis.
- 24 Q. Professor Zeger, have you also prepared a core
- 25 estimate of the expenditures for the state of STIREWALT & ASSOCIATES

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- 1 Minnesota for the other major smoking-attributable
- 2 diseases?
- 3 A. Yes. Yes, we have.
- 4 Q. Let me direct your attention now to Trial
- 5 Exhibit 30185. Is that the exhibit?
- 6 A. Yes. Yes, it is.
- 7 Q. And that sets out the core estimate of
- 8 expenditures for the state for the rest of the major
- 9 smoking-attributable disease?
- 10 A. Yes, it does.
- 11 Q. And this was prepared by you?
- 12 A. Yes.
- MR. HAMLIN: Your Honor, plaintiffs offer
- 14 Trial Exhibit 30185 for illustrative purposes.
- MR. GARNICK: No objection.
- 16 THE COURT: Court will receive 30185 for
- 17 illustrative purposes.
- 18 BY MR. HAMLIN:
- 19 Q. I'm now placing the exhibit on the easel.
- 20 Professor Zeger, the exhibit identifies

- 21 CHD/stroke. Now what does that signify?
- 22 A. Remember, yesterday we broke all of the major
- 23 smoking-attributable diseases into two groups.
- 24 Suggestion of Dr. Samet. The first group was lung
- 25 cancer and COPD, and then the second group were the STIREWALT & ASSOCIATES $\,$
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- 1 other 10 -- I believe there were 10 major
- 2 smoking-attributable diseases, and we've called that
- 3 10 CHD/stroke, but it includes more than just
- 4 CHD/stroke.
- 5 Q. Let me put on the overhead Trial Exhibit 30153,
- 6 which has previously been introduced into evidence,
- 7 and that is the list of ICD-9 codes for the diseases
- 8 caused by smoking identified by Dr. Samet?
- 9 A. Yes, that is correct.
- 10 Q. And can you identify for us which of those
- 11 diseases fall into this category of CHD/stroke.
- 12 A. Yes. First let me just distinguish the major
- 13 smoking-attributable diseases from what Dr. Samet
- 14 called diminished health status, which is at the
- 15 bottom. So the major smoking-attributable diseases
- 16 are all the other ICD-9 codes and diseases listed in
- 17 this display except diminished health status. And
- 18 then we've already looked at two of these diseases,
- 19 chronic obstructive pulmonary disease or COPD and
- 20 lung cancer, in the previous calculations, and now
- 21 what we're going to do here is look at all of the
- 22 remainder of them.
- 23 Q. Can you tell us now about the exhibit.
- 24 A. Yes. So now this is just an application of the
- 25 core model approach to expenditures by the state for STIREWALT & ASSOCIATES
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- 1 the treatment of persons who have all of those
- 2 diseases other than COPD and -- COPD and lung cancer,
- and we're calling this group CHD/stroke for
- 4 shorthand. And we did exactly the same thing that I
- 5 described for you in the lung cancer/COPD case. We
- 6 start with the medical claims records for the state.
- 7 I think for the state there are approximately 220
- 8 million of the 280 million. So we start with all
- 9 those claims, and we start with women 35 to 64, and
- 10 we go through the medical claims records for
- 11 Minnesota and we find all of those women 35 to 64 who
- 12 had one of the diseases listed up there on the Elmo,
- 13 and we total the dollars actually expended by the
- 14 state to treat those women. And the total came out
- 15 to be 306.9 million dollars were actually expended by
- 16 the state of Minnesota in these programs, in the
- 17 Medicaid and GAMC programs, to treat these women.
- 18 All of these women are 35 to 64 and have had
- 19 CHD/stroke or the other diseases on the
- 20 table -- on -- on the Elmo.
- 21 And we then go through the three reductions
- 22 again. We start with three hundred -- approximately
- 307 million dollars and we calculate the three
- reductions, the first two from the National Medical Expenditure Survey, and the third one from the

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Minnesota claims data, and we get a total reduction
    of 30.4 percent. And so the total dollars are 306.9
    million. But 30 -- 30.4 percent of those dollars are
 3
    attributable to smoking. We've reduced the amount to
    set aside the non-smokers, to set aside the
 5
 6
    CHD/stroke that wasn't caused by smoking, and to set
    aside the dollars spent for these people that didn't
 7
    have anything to do with their CHD/stroke, and we end
 8
    up with 30.4 percent of the dollars, or a
9
10
    smoking-attributable expenditure of 93.4 million
```

11

12

13

14

15

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17 18

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21

22

23

dollars.

Now we do the same thing for the older women. We go back to the Minnesota claims records. We're now looking for women not 35 to 64, but women 65 and older who have one of these major smoking-attributable diseases. We find all those women and we calculate the dollars the state actually spent to treat those women. And the state spent 375 million dollars to treat women 65 and older that had one of these diseases caused by smoking.

And then we calculate the three reductions.

Some of these women are not smokers, so we only take

a fraction of the dollars. This -- this disease -
these diseases can occur in people who are not

smokers as well as smokers, so we only take the

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proportion that corresponds -- that is actually attributable to their smoking. And these people, 2 even if they don't have this disease, will have some 3 expenditures, so we don't want all expenditures, only 5 those that are attributable to their disease caused by smoking. And when we do the three reductions in 6 7 this group, we get a very small smoking-attributable percentage, 2.3 percent. So the smoking-attributable 9 dollars are 2.3 percent of 375 million, the total expenditures, to give 8.5 million dollars which are 10 11 attributable to smoking.

Then we go to the men 35 to 64, back to the Minnesota claims data, find all of the men 35 to 64 in Minnesota who had one of these diseases, total up the dollars that were actually expended by the state to treat these men. That gave us 291 million dollars. But all of those dollars are not attributable to their smoking, so we calculate the appropriate three reductions which turn out to give 48.4 percent. So the smoking-attributable expenditures are 48.4 percent of the 291 million dollars expended by the state for these men, or 141 million dollars.

And then the last step for the state for these diseases, CHD/stroke, is to go back to the claims STIREWALT & ASSOCIATES

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1 record and find the men who are 65 and older who have

these diseases, and then to find the dollars that
were actually expended by the state to treat these
men. It turns out to be 148 million dollars was
expended by the state over the period of time we're
looking at.

Then we go and calculate the three reductions, because these are the total expenditures, not the smoking-attributable expenditures, and the three reductions give us a total of 5.4 percent of the dollars attributable to smoking. So we take 5.4 percent of 148 million dollars, total expenditures, and attribute eight million dollars to smoking.

And so like we did for the last group, we then total the smoking-attributable dollars across the four groups of Minnesotans who had CHD/stroke and who were paid for by the state, and we get total smoking-attributable dollars of roughly 251 million dollars for this group.

- 20 Q. Professor Zeger, let me direct your attention to
- 21 the column marked "Percentage of Dollars
- 22 Attributable." We see there that the percentages for
- 23 the younger group of women and the younger group of
- 24 men are higher than for the older group. Can you
- 25 explain that?

7

8

10

11

12 13

1

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Yes. It actually is consistent with what we

- DIRECT EXAMINATION SCOTT L. ZEGER 5099
- 2 know about these diseases with the epidemiology that
- 3 Dr. Samet has talked to us about in our working
- 4 groups. Basically, younger people -- younger people
- 5 get these diseases much less frequently if they're
- 6 not smokers, so if you -- if you look at smokers,
- 7 they get these diseases much more often when they're
 - young than never smokers, and when you take older
- 9 people, these diseases become more common even if
- 10 you're not a smoker, and so the difference between --
- in the rates of these diseases between smokers and
- 12 non-smokers is more similar in the older ages than it
- is the younger ages, and that's exactly what shows up
- 14 in our calculations. We get higher dollars --
- 15 percentages of dollars attributable to smoking for
- 16 the younger people than for the older people, and so
- 17 it's consistent with what we know about the
- 18 epidemiology of these diseases.
- 19 Q. Now Professor Zeger, perhaps we could get the
- 20 lung cancer/COPD estimate and put it underneath here.
- Now could you compare the percentage of dollars
- 22 attributable for the CHD/stroke category to the
- 23 percentages that we see for the lung cancer/COPD
- 24 category?
- 25 A. Yes. The other thing --

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- 1 The other pattern you notice when you look at 2 these percent of dollars attributable is that overall
- 3 a smaller -- a smaller percentage of dollars is
- 4 attributable to smoking when you look at CHD and
- 5 stroke versus when you look at lung cancer and COPD,
- 6 that the numbers here are 56, 64, they're bigger

```
numbers, and -- and the numbers over here are
    relatively smaller. And that, again, is consistent
    with what Dr. Samet has told us about the
9
10
    epidemiology, that smoking is the predominant cause
    of lung cancer and COPD. It's relatively rare to get
11
12
    these diseases unless you are a smoker. It can
    occur, but it's rare. Smoking is the predominant
13
    cause. Whereas for CHD/stroke, smoking is a major
    cause but not the only predominant -- not the
15
16
    predominant cause in the same way. And that's why
    it's sensible that this model, when applied to
17
    Minnesota, ends up taking a relatively larger
19
    proportion of the dollars as being
20
    smoking-attributable for lung cancer/COPD than occurs
21
    for CHD/stroke. It's consistent with what Dr. Samet
    has told us about the epidemiology of these diseases.
        Professor Zeger, have you prepared an exhibit
2.3
    illustrating the core estimates of expenditures by
2.4
25
    Blue Cross Blue Shield for lung cancer and COPD?
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                                                    5101
    A. Yes.
1
    Q.
         Let me direct your attention now to --
 3
              THE COURT: Counsel.
 4
         -- trial --
              MR. HAMLIN: Yes.
 5
              THE COURT: We're probably moving into a
 6
7
    little different area.
8
              MR. HAMLIN: Okay.
9
              THE COURT: Maybe we should take a short
10 recess.
              MR. HAMLIN: Fine, Your Honor.
11
              THE CLERK: Court stands in recess.
12
13
              (Recess taken.)
              THE CLERK: Court is again in session.
14
15
              (Jury enters the courtroom.)
              THE CLERK: Please be seated.
16
17 BY MR. HAMLIN:
18 Q. Professor Zeger, with the court's permission,
19
    could you come down once again to the chart.
         Professor Zeger, did you prepare a core estimate
20
21
    of expenditures by Blue Cross Blue Shield for lung
    cancer and COPD?
23
   A. Yes, I did.
24
    Q. Let me direct your attention to Trial Exhibit
25
    30186. Is that the exhibit?
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                                                    5102
 1
    A. Yes, it is.
    Q.
         And that was prepared by you?
    A. Yes.
 4
              MR. HAMLIN: Your Honor, plaintiffs offer
    Trial Exhibit 30186 for illustrative purposes.
 5
              MR. GARNICK: No objection.
 6
 7
              THE COURT: Court will receive 30186.
 8
   BY MR. HAMLIN:
9
   Q. We have a board here, Professor Zeger. Let's
    put it on the easel.
11
         Can you identify the board first.
```

```
Yes. This is the exact same calculation we --
13
    we had done previously for the state, but now we're
14
    going to use the Blue Cross Blue Shield data and
15
     calculate the core estimate of the expenditures for
    Blue Cross Blue Shield. And we're now going to focus
16
17
    upon Minnesotans who had lung cancer or COPD who were
```

19 Can you describe for us what's on the exhibit. Q.

covered by Blue Cross Blue Shield.

18

5 6

8

9

10

11 12

13

14

15

16 17

18

19

20

21 22

23

16

- 20 Α. We proceed in exactly the same way as we had for
- 21 the state, but now we're using the Blue Cross Blue
- Shield claims records, of which I think there are 22
- 23 roughly 60 million of those. And we again split the
- 24 calculations into the four gender and age groups.
- 25 And if we just start with women 35 to 64, we go to STIREWALT & ASSOCIATES
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the 60 million Blue Cross Blue Shield claims records and we search through and find all of the women 35 to 64 years old who were diagnosed with lung cancer or 3 with COPD, and we total up the dollars that Blue Cross Blue Shield paid for the treatment of these women, and that amount came to 26.7 million dollars, and that was over this period 1978 to 1996. 7

And then we start with that 26.7 million, but remember, that's the total expenditures, and what we have to do is get the expenditures attributable to their smoking. So we reduce the 26.7 million, the total expenditures, three times with the three reduction percentages we've talked about, the first to set aside the non-smokers, the second to only take the proportion of lung cancer and COPD which is attributable to smoking, and the third to set aside dollars paid by Blue Cross Blue Shield for treatments that didn't have to do with the lung cancer or COPD. And in these women 35 to 64 years old, 64.4 percent is attributable to smoking. And so we take 64.4 percent of the 26.7 million dollars, or 17.2 million

24 COPD. And then we just carry on. And you'll be 25 STIREWALT & ASSOCIATES

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Blue Shield. These are women who had lung cancer or

dollars, for women 35 to 64 covered by Blue Cross

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relieved to know that I'm not going to do this for every one of these. But we take 65 and older women, 2. men 35 to 64, men 65 and older, each time we go back 3 to the medical records, find the Minnesotans who have lung cancer/COPD, calculate the total expenditures, 5 6 and then reduce those total expenditures with the 7 three reduction percentages to get 8 smoking-attributable expenditures which are now shown 9 here on the far right for the four categories, different ages and different genders, and we add 10 11 those four smoking-attributable expenditure numbers up and we come up with a total of 51.8, approximately 12 13 51.8 million dollars expended by Blue Cross Blue 14 Shield to cover persons with lung cancer and COPD. 15 That's the dollars that are attributable to the

smoking.

- 17 Q. Did you prepare an exhibit illustrating the core
- 18 estimates of expenditures by Blue Cross Blue Shield
- 19 for the CHD/stroke category?
- 20 A. I did.
- 21 Q. Let me direct your attention now to Trial
- 22 Exhibit 30187, and I ask you whether or not that is
- 23 the exhibit?
- 24 A. Yes.
- Q. And that was prepared by you? STIREWALT & ASSOCIATES
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- 1 A. Yes, it was.
- 2 MR. HAMLIN: Your Honor, plaintiffs offer
- 3 Trial Exhibit 30187 for illustrative purposes.
- 4 MR. GARNICK: No objection.
- 5 THE COURT: Court will receive 30187 for
- 6 illustrative purposes.
- 7 BY MR. HAMLIN:
- 8 Q. Professor Zeger, the exhibit is on the overhead,
- 9 and first of all, could you identify it and then take
- 10 us through it.
- 11 A. Yes. If you could just slide that down a little
- 12 bit so we could see the top. There you go.
- 13 This is now the same kind of display, again
- 14 focusing on expenditures by Blue Cross and Blue
- 15 Shield to treat persons in Minnesota who are -- have
- 16 CHD or stroke. And remember, by "CHD/stroke" we mean
- 17 the 10 diseases caused by smoking excluding -- the
- 18 10, but not COPD and not lung cancer. So it's the
- 19 other -- other major smoking-attributable diseases.
- 20 And what this display shows is the application of the
- 21 core model to calculate the smoking-attributable
- 22 expenditures for persons in Minnesota covered by Blue
- 23 Cross and Blue Shield who ended up with CHD/stroke
- 24 and the other major smoking-attributable diseases.
- And the application is identical to what we've STIREWALT & ASSOCIATES
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- now looked at. We break the persons into the four groups, women 35 to 64, women 65 and older, men 35 to
- 3 64, and men 65 or older. If we start with the women
- 4 35 to 64, we search through the 60 million records
- 5 from Blue Cross Blue Shield and find all women 35 to
- 6 64 who have CHD/stroke, and we total their medical
- 7 expenditures, which come to 127 million dollars. But
- 8 that's the total expenditures. We're interested in
- 9 the percentage that's attributable to smoking, and so
- 10 we take the three reductions, the first reduction to
- 11 set aside non-smokers, the second reduction to only
- 12 get those dollars which are attributable to smoking,
- 13 and the third reduction to set aside costs that are
- 14 paying -- expenditures that are paying for things
- other than the treatment of CHD/stroke and related -- and related -- and -- CHD/stroke, the treatment of
- 17 CHD/stroke. And the total percentage of reduction
- 18 turns out to be 20.7 percent.
- 19 And so we take 20.7 percent of the total
- 20 expenditures, 127 million, to get the expenditures
- 21 attributable to smoking, which is 26.3 million

```
dollars for these women 35 to 64 who are covered by
    Blue Cross Blue Shield and who are diagnosed with
23
    CHD/stroke and the other diseases in this group.
24
25
         And then we do the same for women 65 and older,
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    for men 35 to 64, and for men 65 and older. For
 1
    women 65 and older, there is a total expenditure of
    32 million dollars in the -- in the Blue Cross
 3
    records for treatment of these women who have
    CHD/stroke. The percentage that's attributable to
 5
    their smoking is 6.6 percent, which gives
 6
 7
    smoking-attributable dollars of 7.1 million.
8
         Is that seven? Sorry, can't read it. Can I
   just look at the -- I'm sorry.
9
10 Q. Here, it's right here.
11 A. It's hard to see. Can I just look at --
12 Q. Yeah, it's right here.
        Yeah. It's -- it's --
13
    Α.
         This is 32 million and that's 2.1 million, not
14
    seven. I'm sorry, 2.1 million. Thank you.
15
16
         And then if we go to the men 35 to 64, a total
    of 281 million dollars were actually expended by Blue
17
18 Cross Blue Shield to treat these men who have
    CHD/stroke, and 34.7 percent of it is attributable to
19
    smoking, or 97.7 million dollars.
20
         And then finally we go to the older men, and
2.1
22
    there was a total of 55.7 million dollars in the Blue
23
    Cross Blue Shield medical claims records for these
    men who are 65 and older and who have CHD or stroke,
24
25
    and the reduction percentage comes out to be 11.2
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                                                    5108
    percent. And so the smoking-attributable dollars is
1
    6.2 million dollars.
 2.
 3
         And so as we did before, we now total the
    smoking-attributable expenditures for each of the
    different genders and age categories and we get a
 5
    total smoking-attributable expenditures -- these are
 6
 7
    dollars expended by Blue Cross and Blue Shield to
8
    treat their Minnesotans who have CHD and stroke -- we
9
   get a total of 132 million that's attributable to
10
    smoking.
11
    Q. Professor Zeger, let me direct your attention
    now to the column marked "Percent of Dollars
12
13
    Attributable" on the exhibit for CHD/stroke. Can you
14
    explain to us the pattern of percentages that we see
15
    there?
16
    A. Yes. It turned out exactly as it did -- not
17
    exactly, but like it did for the -- before when we
    looked at the state data. We see that there's
19
    relatively a higher percentage of dollars
20
    attributable for the younger women than for the older
21
    women, 20.7 percent versus 6.6 percent, and a higher
    percentage of dollars attributable for the younger
22
23
    men than for the older men, 34.7 percent as opposed
24
    to 11.2 percent. And we talked about that already.
25
    That's consistent with the epidemiology of these
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```

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- 1 diseases which says that these things are relatively
- less rare among older persons, they're more rare
- 3 among younger persons except among smokers, and
- 4 that's why you see this difference.
- 5 Q. Can you --
- 6 A. And --
- 7 Q. Go ahead.
- 8 A. -- the other thing I want to point out about
- 9 this chart is if you look at these numbers, they
- 10 range from six to 35 percent, that's for CHD/stroke,
- 11 and if you look back here at the lung cancer/COPD
- 12 percent attributable, they're much bigger, they're
- 13 much bigger. And again, that's consistent with the
- $14\,$ $\,$ epidemiology that Dr. Samet described to us, because
- 15 for lung cancer and COPD, smoking is the predominant
- 16 cause of these diseases, whereas for CHD/stroke, it's
- 17 a major cause but not the only, predominant cause.
- 18 So we would expect to see larger percentages for lung
- 19 cancer and COPD than we do for CHD/stroke, and that's
- 20 how it turned out.
- 21 Q. Professor Zeger, could you now prepare a summary
- of the core model results on the chart?
- 23 A. Sure. All I'm going to do here is summarize
- 24 what we saw for the four tables presented.
- 25 So we are going to look for each of the payers, STIREWALT & ASSOCIATES
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5110

- 1 the state or Blue Cross and Blue Shield, and for each
- of the disease categories, COPD and lung cancer
- 3 versus the others, what were the smoking-attributable
- 4 dollars. Excuse me if I brought a little piece of
- 5 paper to -- I didn't put them to memory. So for the
- 6 state, when we looked at lung cancer or COPD, the
- 7 smoking-attributable dollars came to 191 million
- 8 dollars. That's what we showed on the first chart.
- 9 And then we went to the -- again the state, but now
- 10 we looked at CHD/stroke and the other major
- 11 smoking-attributable diseases, and the total dollars
- 12 came out to be 251 million dollars. So for the
- 13 state, for Medicaid and GAMC, the total
- 14 smoking-attributable dollars is sum of these two,
- 15 which is 442 million dollars.
- And then we did the same thing using the Blue
- 17 Cross Blue Shield records. So if we look at Blue
- 18 Cross and Blue Shield and now start with the lung
- 19 cancer/COPD cases, we found all the persons with lung
- 20 cancer/COPD covered by Blue Cross Blue Shield, we
- 21 calculated the smoking-attributable expenditures for
- them, and it came out to be 52 million dollars.
- 23 And finally Blue Cross Blue Shield records
- 24 looking at CHD and stroke, and there the
- 25 smoking-attributable expenditures turned out to be STIREWALT & ASSOCIATES
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 - . 132 million. In fact, you can still see it on the
 - 2 Elmo. So for Blue Cross Blue Shield, the total

- 3 smoking-attributable expenditures was 184 million
 4 dollars.
- 5 And if we want to then get a total for both the 6 state and Blue Cross Blue Shield -- if my addition is 7 correct -- it's 626 million dollars.
- 8 Q. Professor Zeger, could you now go to the chart
- 9 where you identify the conceptual structure of the
- 10 model and tell us what portion of the conceptual
- 11 structure of the model this 626 million dollars
- 12 applies to.
- 13 A. Yes. If you recall, we broke down this problem
- 14 into estimating smoking-attributable expenditures for
- 15 different groups of expenditures, we distinguished
- 16 the medical expenditures from the maintenance fees in
- 17 nursing homes, and within the medical expenditures we
- 18 distinguished dollars spent to treat persons who had
- 19 these major diseases, lung cancer and COPD or CHD and
- 20 stroke, we separated those from diminished health.
- 21 And all of the calculations I've just shown you were
- 22 for the major smoking-attributable diseases, they
- 23 were not for diminished health and they were not for
- 24 the nursing homes. So it was this part of the
- 25 smoking-attributable expenditures where we've now STIREWALT & ASSOCIATES
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- 1 calculated 626 million dollars using the core model.
- Q. Okay. So the core estimate for the major
- 3 smoking-attributable diseases is 626 million dollars?
- 4 A. Yes.
- 5 Q. Did you do a core estimate for the diminished
- 6 health portion of the model?
- 7 A. No
- 8 Q. Did you do a core estimate for the nursing home
- 9 portion of the model?
- 10 A. No.
- 11 Q. Why?
- 12 A. The purpose of the core model was to show how
- 13 the calculations worked, to make clear how they work,
- 14 and so we focused on the major smoking-attributable
- 15 diseases when we -- when we worked -- used the core
- 16 model.
- 17 Q. Does the refined model address all of the
- 18 categories listed on your -- your chart here?
- 19 A. Yes. The refined model does major
- 20 smoking-attributable diseases as the core model did,
- 21 but it also then addresses expenditures from
- 22 diminished health and in nursing homes.
- 23 Q. And is Dr. Wyant going to testify about the
- 24 expenditures for the refined model?
- 25 A. Yes, he is.

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- 1 Q. Okay. Which will include expenditures for all
- 2 the categories; right?
- 3 A. That's correct.
- 4 Q. Okay, thank you. You can now return to the
- 5 stand.
- 6 Professor Zeger, I've now placed on the easel
- 7 Trial Exhibit 30184, which is the core estimate of

- 8 expenditures for the state of Minnesota for lung
- 9 cancer and COPD. Do you see that?
- 10 A. Yes.
- 11 Q. What population is the core model designed to
- 12 address?
- 13 A. In that display we've designed the core model to
- 14 estimate the expenditures by the state to treat
- 15 Minnesotans with lung cancer and COPD, the
- 16 expenditures which are attributable to the smoking,
- 17 so it's to estimate -- it's to take the total dollars
- 18 expended for -- by the state and to get the total
- 19 attributable expenditures, so it's the 190 million
- 20 dollars at the bottom right of that display which was
- 21 the target of the core model.
- 22 Q. Did the core model focus on any of these
- 23 subgroups that are listed on the exhibit?
- 24 A. No. The core model used stratification; that
- 25 is, it broke down the calculations into some subparts STIREWALT & ASSOCIATES
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- 1 in order to get the best -- an accurate and reliable
- 2 estimate of the total. But we didn't break it down
- 3 in order to get a separate estimate for each of these
 - subgroups that we would use on its own; rather, we
- 5 were trying to estimate the total as reliably as
- 6 possible.
- 7 Q. But why not use this approach to focus on the
- 8 subgroups?
- 9 A. Well the law of averages, which we talked about
- 10 before, helps us get a reliable estimate of the
- 11 total, because you may have some pluses and minuses
- 12 in smaller subgroups, and those will tend to cancel
- 13 each other out when you -- when you total. So the
- 14 total tends to be more reliable than the --
- 15 relatively more reliable than the values in any
- 16 particular small subgroup.
- 17 Q. Now you just talked about the law of averages.
- 18 Now is that -- does that refer to the coin flip
- 19 example?
- 20 A. Yes. I illustrated the law of averages with
- 21 that coin toss.
- 22 Q. Could you approach the flip chart and talk about
- 23 that, --
- 24 A. Sure.
- 25 Q. -- the coin tosses, explain why the core model STIREWALT & ASSOCIATES
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- 1 doesn't focus on subgroups.
- 2 A. This is just to make the point that if you were
- 3 trying to estimate the proportion of heads in this
- 4 simple coin-tossing experiment, the most reliable
- 5 estimate is the proportion of heads observed in all
- 6 $\,$ 20 tosses, which came out to be 55 percent. And you
- 7 could think of the subgroups as being like sets of -- 8 of a few tosses which, when added together, give us
- 9 the total amount, and what the law of averages tells
- 10 us is that the overall percentage is more reliable
- 11 than the percentage in any of the one subgroups.
- 12 So, for example, if we look at the first

- 13 subgroup of four, we see that there's 25 percent
- 14 heads. That's further from the true value of 50
- 15 percent than is 55 percent, the value we see by
- 16 looking at all the coins. So while it -- you -- you
- 17 could do the calculation four tosses at a time, what
- 18 you really -- the best estimate comes from using all
- 19 of the information, because the law of averages helps
- 20 you there.
- 21 Q. Well take the subgroup of the four heads. Which
- 22 gives you a better idea of the law of averages, that
- 23 subgroup or the entire 20 flips?
- 24 A. Yes. If you were trying to estimate the
- 25 proportion of heads, it would be quite silly to rely STIREWALT & ASSOCIATES
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- 1 on this set of four tosses and say, oh, this is a
 - coin that only gives heads. The proportion of heads
- 3 in this subgroup is a hundred percent, but what
- 4 happens in the law of averages is that you keep
- 5 tossing and you add up the different subgroups, the
- heads and tails tend to balance each other, and the
- 7 overall percentage is 55 percent, which is closer to
- 8 what we know in this case to be the truth when we
- 9 toss a fair coin.
- 10 Q. Well, can you just set aside that subgroup of
- 11 four heads and come up with a reliable estimate of
- 12 the law of averages?
- 13 A. No.
- 14 The -- the other thing, in addition to not just
- using a subgroup and saying, you know, that's the
- 16 best estimate, you certainly wouldn't want to search
- 17 along these sequences of heads and tails and identify
- 18 a subgroup which was of some interest, all heads, and
- 19 then say, oh, we're going to set those aside, because
- 20 look, they were all heads there, can't be right,
- 21 and -- and then take the percentage of the remaining
- 22 heads and tails. What would happen? Rather than
- 23 having 11 heads, we would set aside four and we would
- $24\,$ have only seven heads, and so seven out of 20 is 35
- 25 percent. And what -- what we did is we didn't -- we STIREWALT & ASSOCIATES
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- 1 didn't allow the law of averages to play a role. We
- 2 set aside a set of tosses because of what happened in
- 3 those tosses, and so we couldn't get a fair
- 4 assessment of the percentage of heads when we do so.
- 5 So that would not be a sensible thing to do.
- 6 Q. And what is the sensible thing to do?
- 7 A. The sensible thing to do is to take all the
- 8 tosses and look at the proportion of heads, which
- here came out to be 55 percent.
- 10 Q. And can you relate that, then, to the core
- 11 estimate?
- 12 A. Yes. In the core estimate we've -- we've made
- 13 calculations separately for four strata because we
- 14 wanted to compare like with like. But the sensible
- 15 thing to do in terms of estimating total
- 16 smoking-attributable expenditures is to look at the
- 17 totals across the different gender and age groups

rather than looking at values of a particular age 19 group. That would be more reliable. 20 Q. Thank you. 21 Now let me ask you about estimating the smoking-attributable expenditures. Suppose that you 23 looked at a population of Medicaid recipients, and 24 suppose that that population includes smokers and 25 non-smokers. Would you compare the average medical STIREWALT & ASSOCIATES P.O. BOX 18188, MINNEAPOLIS, MN 55418 1-800-553-1953 DIRECT EXAMINATION - SCOTT L. ZEGER cost of all smokers to the average medical cost of 1 all non-smokers to get a smoking-attributable 2 3 expenditure? 4 A. No, I would not do that. 5 Q. Why? There are several reasons, but let me address 6 Α. 7 two of them. 8 The first is in order to make a calculation of smoking-attributable expenditures, you have to rely 9 on what you know about medicine, and Dr. Samet has 10 told us that smoking causes disease and disease is 11 12 what results in expenditures. So if you just took the average expenditures for smokers and the average 13 14 expenditures for non-smokers, you would be ignoring all of the information about disease. You would --15 you would not be building your calculation on a 16 17 medical foundation, which is essential. And in this 18 case in Minnesota, you would be ignoring all of the 19 information available about Minnesotans, you would be 20 ignoring the more than 280 million claims records that have what disease these Minnesotans have who are 2.1 covered by Medicaid and Blue Cross Blue Shield. So 23 rather than going to where the expenditures are 24 likely to occur in those diseases that are caused by 25 smoking, you would be just treating everybody the STIREWALT & ASSOCIATES P.O. BOX 18188, MINNEAPOLIS, MN 55418 1-800-553-1953 DIRECT EXAMINATION - SCOTT L. ZEGER 5119 same whether they had lung cancer or not. So it --1 that approach ignores the medical foundation and it 2 ignores the best source of information about 3 4 Minnesota; namely, the claims records which we have 5 for every Minnesotan and how much was expended and what disease it was expended on. So that's the first 6 7 reason. And then there's a second reason I would 8 9 mention, and -- and that has to do with this idea of comparing like to like. Let me just give an example 10 of comparing like to like. Imagine we wanted not --11 not to look at the effect of smoking, but to look at 12 13 the effect of skate boarding, and so we went and got 14 a group of Minnesotans, skate boarders down around 15 the lakes, say, in the summer, and we calculated their average medical expenditures, and then we 16 17 wanted to compare that to others who don't skate 18 board, so we took a sample of Minnesotans and we 19 calculated who didn't -- and we found out the ones who didn't skate board, and we calculated their 20

average medical expenditures. So we have medical

expenditures for skate boarders and medical

21

expenditures for non-skate boarders. Can we take the difference between those two and 24 25 say that's due to skate boarding? No. STIREWALT & ASSOCIATES P.O. BOX 18188, MINNEAPOLIS, MN 55418 1-800-553-1953 DIRECT EXAMINATION - SCOTT L. ZEGER 5120 Why not? Well, think about skate boarders. I don't know about you, but I don't skate any more 2 3 because I'm too old. Skate boarders tend to be young. In fact they tend to be in the age 10 to 20. And citizens of Minnesota on average are older, tend 5 to be older. And what do we know about medical 6 7 expenditures for older people relative to young --8 young, healthier people? Older people tend to have 9 higher medical expenditures. So the problem of comparing skate boarders who are 10 to 20 with a 10 11 sample of Minnesotans who tend to be older is that 12 you won't be seeing the effect of skate boarding, it 13 will be mixed in with the differential and expenditures due to age. You won't see it. 14 And that's why we do stratification, so that you 15 compare like to like. What you should do is compare 16 17 10- to 20-year-old skate boarders with 10- to 20-year-old non-skate boarders, and then you can make 18 19 a fair comparison to see what the possible expenditures are related to skate boarding. Now 20 that's a, you know, silly example, but now let's go 21 back to the case of smoking. 2.2 23 If we compare the average expenditures for 24 smokers with the average expenditures for 25 non-smokers, we're ignoring one medical fact, which STIREWALT & ASSOCIATES P.O. BOX 18188, MINNEAPOLIS, MN 55418 1-800-553-1953 DIRECT EXAMINATION - SCOTT L. ZEGER is that smoking causes disease but it also tends to kill people prematurely, and the effect of killing 2 3 people -- people prematurely is that the set of --4 the group of smokers tend to be a bit younger than the group of non-smokers. Otherwise, other things 5 being similar, because we've killed some of the 6 smokers prematurely, they don't get to live to be as 7 8 old. So if you just compare average expenditures for 9 smokers and non-smokers, you won't be comparing like 1.0 to like, because the non-smokers will tend to be a 11 little bit older because they've lived longer; the 12 smoking hasn't killed them. 13 So that simple comparison of taking average 14 costs for smokers and average costs for non-smokers 15 is -- is not sensible for the two reasons. First is 16 it ignores the very valuable information that we have 17 available to us. First, we know that smoking causes 18 disease which results in expenditures, and we have 19 enormous amounts of information about Minnesotans and 20 the diseases that they had, so to ignore that information, to treat lung cancer patients no 21 22 differently than anybody else walking on the street would be silly if you're really interested in looking 23 24 at smoking-attributable expenditures. 25 And then secondly, smoking not only causes STIREWALT & ASSOCIATES P.O. BOX 18188, MINNEAPOLIS, MN 55418 1-800-553-1953

- 1 disease but it kills people prematurely, and so you
- 2 can't just calculate the average expenditures, you
- 3 have to compare like with like, you have to compare
- 4 people of a similar age as well.
- 5 Q. So would comparing the average medical cost of
- 6 all smokers to the average medical cost of all
- 7 non-smokers make it easier or harder to estimate a
- 8 smoking-attributable expenditure?
- 9 A. It would make it harder.
- MR. HAMLIN: Your Honor, that's all I have.
- 11 The only thing that I -- I want -- would like to do
- 12 now is I would like to mark the charts that Professor
- 13 Zeger has prepared and offer them. If I could do
- 14 that now.
- 15 BY MR. HAMLIN:
- 16 Q. Professor Zeger, for the record, I'm showing you
- 17 what I've marked as Trial Exhibit 25050. Could you
- 18 identify that for me.
- 19 A. Yes. That's the chart that shows the set of 20
- 20 coin tosses in order to illustrate the statistical
- 21 principle, the law of averages.
- MR. HAMLIN: Your Honor, we offer Trial
- 23 Exhibit 25050 for illustrative purposes.
- MR. GARNICK: No objection.
- 25 THE COURT: Court will receive 25050 for STIREWALT & ASSOCIATES
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- 1 illustrative purposes.
- 2 BY MR. HAMLIN:
- 3 Q. Professor Zeger, let me show you what I've
- 4 marked as Trial Exhibit 25051. Can you identify this
- 5 chart for me.
- 6 A. Yes. That was a chart which shows the medical
- 7 foundation for our approach to calculating
- 8 smoking-attributable expenditures, that smoking
- 9 causes disease which results in expenditures, and
- 10 then shows how we partitioned the estimation of
- 11 smoking-attributable expenditures into parts, and it
- 12 shows the medical versus nursing home and then among
- 13 medical, major smoking-attributable diseases versus
- 14 diminished health, and then it also shows the total
- 15 dollars estimated, smoking-attributable, to the major
- 16 smoking-attributable diseases, that's 626 million
- 17 dollars.
- MR. HAMLIN: Your Honor, plaintiffs offer
- 19 Trial Exhibit 25051 for illustrative purposes.
- MR. GARNICK: No objection.
- 21 THE COURT: Court will receive 25051 for
- 22 illustrative purposes.
- 23 BY MR. HAMLIN:
- 24 Q. Professor Zeger, I want to direct your attention
- 25 now to Trial Exhibit 25052. Can you tell me what STIREWALT & ASSOCIATES
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- 1 that is.
- 2 A. Yes. That exhibit shows how we use the ideas in
- 3 the core model to apply them to the state of

```
Minnesota, and it identifies the steps that we take
    and the source of the data for -- to take each of
 5
 6
    those steps.
7
    Q. Then finally, Professor Zeger, I want to show
    you Trial Exhibit 25053. Can you identify this.
9
    A. Yes. This exhibit summarizes the application of
    the core model to the state of Minnesota and Blue
10
    Cross Blue Shield, and summarizes the
11
    smoking-attributable dollars for the state and for
12
13
    Blue Cross Blue Shield for each of two groups of
    diseases, lung cancer and COPD in the one group, and
14
    CHD/stroke and the other major smoking-attributable
    diseases in the other group, and then calculates the
16
17
    total smoking-attributable dollars for those groups.
              MR. HAMLIN: Your Honor, plaintiffs offer
18
19
   at this time Trial Exhibit 25052 and 25053 for
20
    illustrative purposes.
21
              MR. GARNICK: No objection.
22
              THE COURT: Court will receive 25052 and
23 '53 for illustrative purposes.
24
              MR. HAMLIN: I have no further questions of
25
    this witness, Your Honor.
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                                                    5125
              MR. GARNICK: Your Honor, I'm going to need
1
    a few minutes to set up, if the court prefers early
 2.
    lunch, or I could set up as quickly as I can.
 3
 4
    will be a few minutes.
 5
              THE COURT: Why don't we have an early
    lunch. We'll recess at this time and reconvene at
 6
7
    1:15.
              THE CLERK: Court stands in recess until
8
9
    1:15
10
              (Recess taken.)
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
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                                                    5126
1
                        AFTERNOON SESSION.
              THE CLERK: All rise. Court is again in
 2
 3
    session.
               (Jury enters the courtroom.)
 4
 5
              THE CLERK: Please be seated.
 6
              THE COURT: Counsel.
7
              MR. GARNICK: Thank you, Your Honor.
        Good afternoon, ladies and gentlemen.
```

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9
              (Collective "Good afternoon.")
10
                       CROSS-EXAMINATION
11
   BY MR. GARNICK:
12 Q. Good afternoon, Dr. Zeger.
13 A. Good afternoon.
   Q. We've never met. I'm Murray Garnick and I
14
    represent Philip Morris.
15
    A. Nice to meet you.
16
17
    Q.
         Dr. Zeger, you were asked to look at
18
    expenditures made from 1978 to 1996 by the state and
19
    Blue Cross for health-care services attributable to
2.0
    smoking; correct?
21
    A. Yes.
22
         Okay. And to do that, you developed a series of
    Q.
23
    models; correct?
2.4
    A. We -- we developed a -- a core model and a
25
    refined model, yes.
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                                                   5127
         Okay. And you developed --
         Well let's put the core model over here. As I
 3
    understand it, your final damage estimates in this
 4
    case are not based upon the core model; is that
 5
    correct?
 6
    Α.
         Not entirely.
7
        Well they're not derived from the core model.
    Q.
         The final damage estimates are calculated
 8
    Α.
9
    used -- calculated using the refined model.
10
    Q. Okay. All right. And there are --
         Is it fair to say that there are three parts of
11
12 the refined model?
13
    A. I'm not sure. It depends how you define
    "parts."
14
    Q. Okay. Well there's the major smoking-related
15
    diseases. Is that a separate model or is that a part
16
17
    of a model?
18
    A. There's the major smoking-attributable diseases.
19
    Those are a set of expenditures.
    Q. Okay. And that's part of the refined model.
        It's not -- it's not a part of the model.
21 A.
   Remember, we -- well it's not a part of the model.
22
23
    mean the model was organized to deal with information
    that was broken down into categories, one of which
2.4
25
    was expenditures to treat Minnesotans who were
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             CROSS-EXAMINATION - SCOTT L. ZEGER
                                                   5128
    suffering from major smoking-attributable diseases.
 2
    So we -- we broke down the information in the claims
    data.
 3
 4
    Q.
         Okay. So one category is the major
    smoking-attributable diseases; correct?
    A. That is a category of expenditures.
 6
 7
        Right.
    Q.
         Yes.
 8
    Α.
    Q.
9
         Category of expenditures.
10 A. That's correct.
11 Q. Another category of expenditures are
12 expenditures for diminished health; correct?
13
    A. That's correct.
```

- 14 Q. And another category of expenditures is for
- 15 nursing home maintenance fees; correct?
- 16 A. Correct.
- 17 Q. Okay. And together, these categories are
- 18 designed to capture all or almost all of the medical
- 19 expenses incurred by smokers and paid by the state
- 20 and Blue Cross Blue Shield; is that correct?
- 21 A. Well not exactly, no.
- 22 Q. Why not exactly?
- 23 A. Because the models are -- the models are used to
- 24 take the total expenditures paid by Blue Cross Blue
- 25 Shield and the state and to calculate the

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- 1 attributable -- the dollars that were attributable to smoking.
- 3 Q. Okay. But these -- these --
- 4 This model, refined model, was designed to
- 5 determine those costs attributable to smoking paid by
- 6 the state and Blue Cross Blue Shield.
- 7 A. That's correct.
- 8 Q. And it was designed to determine all such costs;
- 9 correct?
- 10 A. Correct.
- 11 Q. Okay.
- 12 A. Approximately correct.
- 13 Q. By the way, doctor, has the refined model ever
- 14 been published?
- 15 A. Not yet.
- 16 Q. And has the core model ever been published?
- 17 A. Not yet.
- 18 Q. Now you testified that Dr. Wyant is going to
- 19 talk about the refined model; correct?
- 20 A. Correct.
- 21 Q. And so you have not offered in court an opinion
- 22 as to the validity or the accuracy of this refined
- 23 model; correct?
- 24 A. Not entirely correct.
- 25 Q. Well how have you --

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- 1 You have testified about the refined model?
- 2 $\,$ A. I've testified about the core model, which was
- 3 so named because the calculations are at the core of 4 the refined model, and so the testimony provided to
- 5 the jury about the core model is obviously relevant
- the jury about the core model is obviously relevant to assessing the -- the refined model. So to that
- 7 extent my testimony is relevant to the calculations
- 8 from the refined model.
- 9 Q. Well that's not my question. My question is:
- 10 Have you testified about the validity or the accuracy 11 of the refined model?
- MR. HAMLIN: Objection, Your Honor, asked
- 13 and answered.
- 14 THE COURT: I think it's been asked and
- 15 answered, counsel.
- 16 Q. Doctor, have you testified about the validity or
- 17 the accuracy of the final damage estimates derived
- 18 from the refined model?

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MR. HAMLIN: Objection, asked and answered.

It's the same question.

THE COURT: No, it's a different question.

A. My testimony about -- about the core model is
```

- 24 estimates from the refined model because the refined 25 model uses the core calculations at the heart of the
- 25 model uses the core calculations at the heart of the STIREWALT & ASSOCIATES
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relevant to the accuracy and validity of the damage

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- things being done in the refined model.
- 2 Q. The refined model uses the core calculations?
- 3 You mean the general approach; is -- is that correct?
- A. It certainly uses the general approach, but
- 5 actually uses calculations that are very close to
- 6 what is done in the core model, just done in a -- in
- 7 a more refined way.
- 8 Q. Okay. But again, the final damage estimates
- 9 come from the refined model but not the core model;
- 10 correct?
- 11 A. That's correct.
- 12 Q. By the way, doctor, who determined what factors,
- 13 what variables to use in the models?
- 14 A. As I testified, our models were built in a
- 15 collaboration that included Dr. Wyant, myself, Dr.
- 16 Miller and Dr. Samet. And Dr. Samet was the medical
- 17 expert, the epidemiologist, and when we had to make
- 18 decisions about variables to include in the final
- 19 model, we had -- we -- we met regularly as a group,
- 20 we had discussions about it. Dr. Samet provided the
- 21 expert judgment related to the medical background
- 22 necessary to make these decisions, and then Drs.
- 23 Wyant, Miller and myself were responsible for making
- 24 the final decision about a variable in the model.
- 25 But we relied heavily on Dr. Samet's opinions about STIREWALT & ASSOCIATES
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- 1 the potential for certain variables to be important
- 2 to the model.
- 3 Q. Did Dr. Samet make any recommendations
- 4 concerning what possible confounders to use?
- 5 A. I just described the process. We -- we're a
- 6 collaborative team. We discussed possible
- 7 confounders and we ultimately made a decision, but --
- 8 but for the statistical modeling part it was the
- 9 three statisticians and health economist that made
- 10 the final decision.
- 11 Q. If Dr. Samet testified that he did not make any
- 12 recommendations concerning what confounders to use or
- 13 potential confounders to use in the model, would that
- 14 be correct or incorrect?
- MR. HAMLIN: Objection, Your Honor, I
- 16 believe that mischaracterizes Dr. Samet's testimony.
- 17 I think it's improper use of testimony from one
- 18 witness to question another.
- 19 MR. GARNICK: Your Honor, I'd be happy to
- 20 read his testimony and ask if that would be correct
- 21 or incorrect.
- 22 THE COURT: Maybe you would be better off
- 23 reading his testimony.

```
24
              MR. GARNICK: Okay. Do we have a copy for
25
    the witness?
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                                                     5133
          May I approach the witness, Your Honor?
 1
               (Document handed to the witness.)
 3
     BY MR. GARNICK:
 4
     Q. Dr. Zeger, if you could turn to page 3842 --
 5
          I'm sorry, Mr. Garnick, I couldn't hear the
 6
    page.
 7
         3842.
    Q.
         3842. Thank you.
 8
    Α.
         Line 16.
 9
    Q.
          "Question: Did you provide any" --
10
         And this is a question to Dr. Samet.
11
12
          "Question: Did you provide any recommendation
13
    as to which potential confounders the authors of the
14
    model should take into account with respect to heart
15
    disease or lung cancer?
          "Answer: I described my recommendations
16
17
     concerning the models yesterday. Those
18
     recommendations do not include confounding."
19
          Would that statement by Dr. Samet be correct or
20
    incorrect?
         Well what Dr. Samet said prior to that testimony
21 A.
    was that he met with us on many occasions -- I think
22
    it says at least 10, but I think if you count, it may
2.3
24
     even be more -- and at all of those -- many of those
25
    meetings there was detailed discussions about
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                                                     5134
     confounding, and -- and Dr. Samet contributed
 1
 2
     substantially to our understanding of which the
     important confounders might be; for example, that we
 3
     should, even in the core model, stratify by age and
 4
 5
     gender, and -- and also provided us access to
    literature that described confounders.
 6
 7
          In the end, Dr. Samet did not give me a piece of
    paper which said here are the confounders, nor did he
 8
 9
     say you must have these in the model. And he was a
10
    participant in the discussions. He provided medical
11
    expertise. And it was upon that expertise which we
12
    relied when we made a decision about which variables
13
    to include in the model or not.
14
     Q. Doctor, did he make recommendations as to which
15
     variables should be included in the model?
16
               MR. HAMLIN: Objection, asked and answered.
17
               THE COURT: It's been asked and answered.
18
          I want to go back to your air -- airplane --
19
     airport analogy, your model on going to the airport.
20
     Now the point of the model, as I understand it, is to
21
     account for enough information to make this model
22
     generally applicable to people who may want to use
23
     and want to know how long it will take to go -- to
24
     get to the airport; correct?
25
         Could you repeat the question? I'm sorry.
     Α.
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```

- 1 Q. Sure.
- The point of the model, the point of a model
- 3 like this is to take into account enough information
- 4 to be reasonably accurate so that someone can rely
- 5 upon it in determining how long it's going to take to 6 get to the airport.
- 7 A. The purpose of this model was to illustrate to
- 8 the jury what I meant when I talk about a model, and
- 9 to also make the point that models, while the word
- 10 sounds technical, it really just represents something
- 11 that we all do every day.
- 12 Q. But if I were to have a model like this, okay,
- in order to be useful, it would have to take into
- 14 account enough information to be reasonably accurate
- 15 and to give me reasonably accurate information about
- 16 how long it would take to get to the airport;
- 17 correct?
- 18 A. I -- I can't agree with that sentence just
- 19 because you're using several terms that have
- 20 statistical meanings, and I'm not exactly sure what
- 21 you mean by them.
- 22 This -- this -- the purpose of this model, this
- 23 little example, was to illustrate to the jury what we
- 24 mean about -- what we mean by the words "statistical
- 25 model," and -- and that's really all it was intended STIREWALT & ASSOCIATES
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- 1 for.
- 2 Q. Is it possible to create a model that would let
- 3 me know how long it would take to get from here to
- 4 the airport?
- 5 A. Well, this is an example of a very simple
- 6 two-by-two table which describes the average time to
- 7 the airport, depending on where you leave from and
- 8 what time of day you leave. So it is -- it is
- 9 possible to have an illustration like this, --
- 10 Q. Okay.
- 11 A. -- since I did it.
- 12 Q. And a model must take into account a certain
- 13 amount of information in order to be reasonably
- 14 reliable; correct?
- 15 A. It's a vague question, Mr. Garnick. "A certain
- 16 amount of information," I don't know exactly what you
- 17 mean by that.
- 18 Q. You must take into account enough information to
- 19 be generally applicable; correct?
- 20 A. But I don't know what you mean by "generally
- 21 applicable."
- 22 Q. I mean it in the layman's sense, doctor.
- 23 A. Well being from out of town and having no prior
- 24 sense of how long it takes to get to the
- 25 airport -- it could be 10 minutes, it could be an STIREWALT & ASSOCIATES
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- 1 hour, it could be two hours -- this model would be
- 2 generally applicable to me because it laid out for me
- 3 roughly the time, it's not two hours, it's not 10
- 4 minutes, but it's a little bit in between, it's in

- between, and it gave me some indication that it takes
- longer in Minneapolis/St. Paul during rush-hour than 6
- not during rush-hour, and it also told me that it 7
- takes longer from Minneapolis than -- than from St.
- Paul. So that would be useful information to me, a 9
- 10 person who didn't have a lot of outside knowledge
- about the time. So in that sense this model is 11
- 12 useful and applicable for me.
- And the model would become more accurate and 13
- 14 more useful to the extent that it takes into account
- more information; correct? 15
- A. Not necessarily, no.
- 17 Well certainly this model would become more
- 18 useful and more accurate to the extent that it took
- 19 into account different kinds of things that a person
- 20 may encounter on the way to the airport.
- 21 A. Maybe, and maybe not.
- 22 Q. Well let's -- let's look at this factor that you
- 23 took into account, snow. If snow was not in that
- 24 model and there was a foot of snow on the ground, the
- 25 model -- if I wanted to know how long it would take STIREWALT & ASSOCIATES
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- to get to the airport, that model would give me the wrong answer; correct?
- A. It may or it may not. I don't know very much 3
- about snow removal in Minneapolis and St. Paul, but
- 5 I'm sure it's better here than it is in Baltimore
 - where I come from, and so I -- I can't answer the
- 7 question specifically.

- 8 What snow was in the model to illustrate was
- that it's possible to take a model that's represented 9
- in a table and then to write it down in a formula so 10
- that you could add other variables that may or may 11
- not be useful. I wasn't suggesting, not being from 12
- this area and not knowing about snow removal, that we 13
- 14 should really add four minutes every time -- for
- 15 every inch of snow. I really didn't know that about. Q. Well let's assume that's right. Let's assume
- 17 you add four minutes for every inch of snow and you
- don't take snow into account in the model and there 18 was a foot of snow on the ground. If I relied upon 19
- 2.0
- this model without the snow variable, I would get a
- 21 wrong answer.
- 22 A. Well it depends what you mean -- what question
- 23 you're asking.
- 24 Q. I'm asking how long it would be needed to drive
- 25 to the airport.

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- 1 Yes, you would --
- If snow was an important predictor, if we -- if 2
- we assume that hypothetically, and if you didn't take 3
- account of snow, then the predicted -- predicted time
- to the airport would be underestimated in that model 5 relative to what would actually happen if -- if snow 6
- 7 was important.
- Q. And in fact I could well miss my plane; couldn't
 - I?

- 10 A. It would be possible, depending on the
- 11 situation, yes.
- 12 Q. All right. And -- and so if there's not enough
- information in the model, not only might you get the
- 14 wrong result, but you might miss your plane; correct?
- 15 A. If you were going to the airport to take a plane
- 16 and if you weren't sensible enough to leave some
- 17 additional leeway, as most of us do, that is a
- 18 possible outcome.
- 19 Q. Now if I wanted to get to the airport and there
- 20 was a rain storm, that model may or may not be
- 21 correct; right?
- 22 A. Again, I -- I -- I can't speculate about, you
- 23 know, rain here and what the traffic is. But this
- 24 model was only meant to illustrate what we mean by
- 25 the word "model" when we talk about them.

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- 1 Q. And if I wanted to get to the airport and there
- 2 was a hail storm and the model didn't take into
- 3 account hail storms, again the model could well be
- 4 incorrect; right?

6

- 5 A. The predictions of the time to the airport might
 - not reflect the influence of hail that happens here
- 7 in Minneapolis commonly.
- 8 Q. And the same thing, if I was trying to get to
- 9 the airport and I got a flat tire or if I got lost,
- 10 the model may -- may be inaccurate because it doesn't
- 11 contain that information; correct?
- 12 A. I wouldn't say that the model is inaccurate, the
- 13 model would -- would reflect what happens on average.
- 14 You know, what happens on average might well include
- 15 that occasionally people have flat tires or
- 16 occasionally people take wrong turns. In that case
- 17 it might not be incorrect.
- 18 Q. Well if the snow variable was not in the model,
- 19 and if it was winter -- not this winter, another
- 20 winter -- the model the may not apply to any trip to
- 21 the airport during that -- during that season, during
- 22 winter; right?
- 23 A. Again, I said I'm not an outside -- I'm not an
- 24 expert on time to the airport. What -- what may be
- 25 true is that those coefficients represented there, STIREWALT & ASSOCIATES
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- those numbers, 15, 10 and 20, were developed for the
- 2 winter, in which case it would be correct.
- 3 Q. Well let's take a look and see what information
- 4 the core model uses. Now the core model determines
- 5 smoking-attributable costs for all the major
- 6 smoking-attributable diseases; correct?
- 7 A. All of the diseases identified by Dr. Samet, the
- 8 major smoking-attributable diseases identified by Dr.
- 9 Samet.
- 10 Q. And that includes lung cancer; correct?
- 11 A. Correct.
- 12 Q. It includes heart disease; correct?
- 13 A. Correct.
- 14 Q. Now does the core model consider and factor and

- 15 take into account residence, where a person lives?
- 16 A. Where in Minneapolis? It may -- excuse me,
- 17 where in Minnesota? It takes account that somebody
- 18 lives in Minnesota.
- 19 O. Does it take into account whether they live next
- 20 to a toxic waste dump or if they live on the farm or
- 21 if they live in the city?
- 22 A. It does not.
- 23 Q. Okay. Does it take into account place of birth?
- 24 A. It does not.
- Q. Does it take into account family history? STIREWALT & ASSOCIATES
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- 1 A. Of what?
- 2 Q. Of any of the -- any one --
- 3 Of anyone. Does it take into account family
- 4 history of anyone in the NMES database?
- 5 A. Well the -- the core model takes into account
- 6 the fact that the person has a particular disease or
- 7 not. It does not take into account the question of
- 8 whether a relative of theirs has that disease.
- 9 Q. So it doesn't take into account --
- 10 It doesn't ask the question does -- is -- for
- 11 example, with heart disease, does everyone in the
- 12 person's family have heart disease, it doesn't ask
- 13 that question; correct?
- 14 A. No. As I just stated, it -- it takes account of
- 15 whether the person has heart disease, not whether
- 16 their family has it.
- 17 Q. Now does it take into account a person's prior
- 18 medical history?
- 19 A. In --
- Not directly, no.
- 21 Q. Does it take into account whether a person has
- 22 hypertension?
- 23 A. Only to the extent that hypertension causes them
- 24 to have coronary heart disease or is caused by
- 25 smoking. And it does not measure whether they have STIREWALT & ASSOCIATES
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- 1 hypertension or not.
- 2 Q. Does the model take into account whether a
- 3 person has high blood pressure?
- 4 A. No.
- 5 Q. Does the model take into account whether a
- 6 person has diabetes?
- 7 A. No.
- 8 Q. By the way, doctor, the model also doesn't look
- 9 at someone's medical records; does it?
- 10 A. Models can't look at medical records.
- 11 Q. Well the people running the model do not look at
- 12 any individual's medical records; do they?
- 13 A. The people working on the model did review
- 14 claims data.
- 15 Q. But claims data are not medical records; are
- 16 they?
- 17 A. They're not the same, no.
- 18 Q. Okay.
- 19 A. It would be inappropriate, in my opinion, for

- 20 persons working to estimate smoking-attributable
- 21 expenditures to intrude upon the privacy of a doctor
- 22 and patient by looking at medical records.
- Q. Does the model ask about exercise?
- 24 A. Models don't ask questions.
- Q. Well you know what I mean, doctor. Does the STIREWALT & ASSOCIATES
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- 1 model take into account information about exercise?
- 2 A. The core model does not use information about
- 3 whether these persons in Minnesota who had these
- 4 diseases exercised or not.
- 5 Q. In fact, isn't it true that smokers tend to
- 6 exercise less than non-smokers?
- 7 A. I don't have expert knowledge about -- about
- 8 that.
- 9 Q. You don't. You don't know one way or the other?
- 10 A. I said I don't have expert knowledge about that.
- 11 Q. What about alcohol consumption, does -- does the
- 12 model take into account alcohol consumption?
- 13 A. The model does not consider whether a person
- 14 drinks alcohol or not.
- 15 Q. Isn't it true, doctor, that smokers tend to
- 16 drink more alcohol than non-smokers?
- 17 A. I have no knowledge as to whether that's true or
- 18 not.
- 19 Q. What about diet, doctor, does the model take
- 20 into account a person's diet?
- 21 A. It does not.
- 22 Q. So it doesn't matter to the model if a person
- 23 eats 10 Big Macs a day or eats five helpings of
- 24 fruits and vegetables a day; correct?
- 25 A. The core model does not have information about STIREWALT & ASSOCIATES
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- 1 whether a person eats 10 Big Macs a day or not,
- 2 except to the extent --
- 3 Yeah. It doesn't. It doesn't.
- 4 Q. What about depression, does the model take into
- 5 account whether a person is depressed or not?
- 6 A. The core model does not take into account any
- 7 information about depression.
- 8 Q. What about occupation, does the model take into
- 9 account a person's occupation?
- 10 A. The model takes into account whether a person is
- 11 covered on Medicaid or Blue Cross Blue Shield, and
- 12 there is some information in that stratification
- that's obviously related to a person's occupation.
- 14 Q. Is it your testimony that the core model takes
- into account a person's occupation?
- 16 A. It's my testimony that the model takes into
- 17 account whether a person is being covered by Blue
- 18 Cross Blue Shield or by Medicaid or GAMC, and
- 19 Medicaid and GAMC are programs for poor people, which
- 20 tend to have certain sorts of occupations, and so
- 21 there is some information, I'm sure, about occupation
- 22 in the differentiation between Blue Cross Blue Shield
- 23 and -- and state.
- 24 Q. But you would agree with me that the model does

not take into account occupation per se.

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- A. Over and above what I've just testified, that's
- 2 correct.
- 3 Q. So if a person is in an occupation that might
- subject him or her to asbestos or heavy metals, that 4
- would not be taken into account by the model, except 5
- to the extent that you indicated. 6
- That's correct. 7
- Okay. What about marital status, does the model 8 Q.
- take into account marital status? 9
- 10 A. The core model does not take into account
- 11 marital status. The refined model does.
- What about race, does the model take into 12 Q.
- 13 account race?
- 14 A. The core model does not take into account race.
- 15 The refined model does.
- Q. What about education, does the core model take 16
- into account education? 17
- A. Same answer. 18
- Q. And that answer is? 19
- A. The core model does not take into account 20
- 21 education. The refined model does.
- 22 Q. And why does the refined model take into account
- 23 education?
- 24 A. Because the purpose of the core model was to
- 25 make simpler calculations that illustrate the

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- principles used in our modeling; that is, starting
 - with the total dollars expended by the state to treat
- Minnesotans who had these major diseases, and to
- reduce those total expenditures to expenditures which 4
- are attributable to smoking in a simple way. And in 5
- 6 order to take account of all of these factors, it
- 7 would require refinement, and that was not the purpose of the core model. 8
- By comparing the core model to the refined 9
- 10 model, we're able to see whether it matters to take
- 11 any these things that you -- some of these things
- 12 that you've written on the board into account or not.
- Q. In fact that's one of the reasons, isn't it, 13
- 14 that your final damage estimates derive from the
- 15 refined model and not the core model; correct?
- 16 A. I'm sorry, could you repeat the question? I
- 17 didn't understand it.
- Q. That is one of the reasons why your final damage 18
- 19 estimates derive from the refined model and not the
- 20 core model; correct?
- 21 A. "That" being --
- 22 I didn't understand what "that" was.
- That being that the core model doesn't take into 23 Q.
- 24 account any of these factors.
- A. The refined model is a refinement in the sense 25 STIREWALT & ASSOCIATES
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- 1 that it does take additional factors into account,
- 2 and that might be one -- one perhaps small reason why
- 3 we relied on the refined model. Personally, I think
- 4 the --
- 5 Yeah, that might be one reason.
- 6 Q. Now the refined model doesn't take into account
- 7 all these factors; does it?
- 8 A. I didn't say that it did, no.
- 9 Q. Now let's go back.
- 10 Does the core model take into account a person's
- 11 weight?
- 12 A. It does not.
- 13 Q. Does the core model take into account a person's
- 14 income?
- 15 A. Only insofar as the coverage is coming from Blue
- 16 Cross Blue Shield versus state programs for the poor,
- 17 so there is taking into account income in that sense.
- 18 Q. But beyond that it doesn't take into account
- 19 income; is that correct?
- 20 A. Well it takes it into account in that sense.
- 21 Q. Oh.
- 22 A. Not beyond.
- 23 Q. What about radon exposure, does the core model
- 24 take into account radon exposure?
- 25 A. It does not.

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- 1 Q. What about illegal drug use, does the core model
- 2 take into account illegal drug use?
- 3 A. The core model does not take into account
- 4 illegal drug use.
- 5 Q. What about risky behavior, does the model take
- 6 into account whether a person is inclined to engage
- 7 in risky behavior?
- 8 A. The core model does not.
- 9 Q. Now could you review for me what information the
- 10 core model does take into account.
- 11 A. Yes, certainly. The core model takes into
- 12 account the payer, whether it's a Blue Cross Blue
- 13 Shield or the state program.
- 14 Q. Okay.
- 15 A. It takes into account what disease the person
- 16 has. These are the diseases that Dr. Samet
- 17 identified as being caused by smoking.
- 18 Q. Okay.
- 19 A. It takes account of the person's age. It takes
- 20 account of the person's gender. And what it really
- 21 takes account of are those variables which in our
- discussion with Dr. Samet were identified as being important to take into account when estimating the
- 24 smoking-attributable expenditures in a simple way so
- 25 that we don't have to have a large number of

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- 1 variables that would make the simple model complex
- 2 and defeat the purpose of the simple model.
- 3 Q. Did Dr. Samet recommend what information the
- 4 core model should take into account?
 - 5 A. Dr. Samet participated in the discussions in

```
which these variables were identified as being
 6
 7
    important to stratify for, yes.
    Q. In the course of participating in those
 8
9
    discussions, did Dr. Samet make a recommendation as
     to what factors should be taken into account?
10
11
              MR. HAMLIN: Objection, asked and answered.
              THE COURT: It's been asked and answered.
12
13
         So to summarize, the core model determines
     Q.
14
     smoking-attributable costs for heart disease and lung
    cancer and other smoking-attributable diseases
15
     identified by Dr. Samet by taking into account
16
17
    gender, age, disease and payer, but not taking into
    account residence, place of birth, family history,
18
19
    prior medical history, hypertension, high blood
20
    pressure, diabetes, exercise, alcohol, diet,
21
    depression, occupation, marital status, race,
    education, weight, radon exposure, illicit drug use
2.2
23
    or risky behavior; is that correct?
24
    A. The core model calculates smoking-attributable
25
    expenditures using all of the variables which have
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                                                     5151
    been shown in previous epidemiologic work as reported
 1
    to us by Dr. Samet that are important to be taken
 3
    into account when calculating smoking-attributable
    expenditures. All the major ones. There are others
 4
    that might lead to refinements, and that's why we
 5
 6
    considered others. But while you've listed many
 7
    things there, the scientific basis for those things
    being important when calculating -- when calculating
 8
9
    smoking-attributable expenditures was not, in Dr.
    Samet's opinion -- did not merit having information
10
    about them.
11
12
        What did Dr. Samet have to say about whether
    Q.
13
    smokers live a less -- generally a less-healthy
14
    lifestyle than non-smokers?
    A. I don't recall specifically a discussion. At
15
16
    this point I don't recall specifically a discussion
17
    about less-healthy lifestyle. I do remember a
18
    discussion where we talked about other studies which
    have had more information about individuals and where
19
20
    that information was included when calculating risks
21
    of various diseases, for example, heart disease, many
2.2
    of the variables you've listed there, and -- and
23
    comparing the results from a study which included
24
    many of these variables with the results that you get
25
    when you control only for age and gender, and finding
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              CROSS-EXAMINATION - SCOTT L. ZEGER
                                                     5152
 1
    that the smoking-attributable effects were not
 2
     changed by controlling for many of those additional
 3
     things.
              MR. GARNICK: Your Honor, I move to strike
 4
 5
    the last portion of his answer as going beyond the
 6
    question.
 7
              MR. HAMLIN: Objection, Your Honor, the
    answer was responsive. Thank you.
 8
 9
              THE COURT: Are you saying it was not
10 responsive?
```

```
MR. GARNICK: I'm saying that the first few
11
   words were responsive, and then he went forward and,
12
13 yes, it was -- the rest of it, his answer was not
14
    responsive.
              THE COURT: I believe it is sufficiently
15
16
    responsive. It will stand.
17
    BY MR. GARNICK:
    Q. What did Dr. Samet have to say about whether
18
19
    smokers exercise less than non-smokers?
20
    A. I can't recall any specific comments about --
21
    about exercise.
    Q. What did Dr. Samet have to say about whether
22
    smokers drink more than non-smokers?
2.3
24
    A. Again, I don't recall the specifics of the -- of
25
    the discussion. I do recall our discussing variables
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    that would potentially -- were potentially important
    to the calculation of smoking-attributable
    expenditures and recall being referred to certain
    articles in the scientific literature, but don't
 4
 5
    recall the specifics about -- about that variable.
         What did Dr. Samet say about whether smokers
 6
    Q.
7
    tend to have less income than non-smokers?
    A. I don't recall the specifics of the discussion.
8
9
        What did Dr. Samet say about whether smokers
    tend to do more risky things than non-smokers?
10
11
    A. Again, my same -- same answer.
12
        Now as part of the core model, you divided the
   smoking-attributable diseases identified by Dr. Samet
13
14 into two categories; correct?
15 A. Yes.
16
    Q. One category was lung cancer/COPD; correct?
17
        Correct.
    Α.
    Q. The other category was heart disease/stroke,
18
19
    plus; correct?
20 A. Heart disease, stroke, and then the other major
21
    smoking-attributable diseases other than lung cancer
22 and COPD which were on the chart that I showed, yes.
    Q. Now instead of dividing up diseases by category,
2.3
    if the core model calculated costs disease by
24
25
    disease, you will not necessarily get the same
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                                                   5154
    answer; correct?
 1
    A. I don't -- I don't know. It's not something I
 2
 3
    did.
 4
         Could you --
 5
         Do you remember being deposed in this case, Dr.
 6
    Zeger?
7
    A. I --
8
         Yes, I was deposed. Yeah.
         Okay. I believe you have your deposition up
9
10
    there. And I would ask you to turn to page 351, and
    I would refer you to line --
11
```

A. Yes, I have it.

Q. Yes.

A. One second, please. 351? Sorry.

Q. Do you remember being asked this question and

12

13

14

giving this answer: 17 "And that would not necessarily yield the same 18 result as it would if you had calculated those 19 probabilities disease by disease; right? "Answer: That's correct." 20 2.1 MR. HAMLIN: Objection, Your Honor, that's 22 an improper use of the deposition. That is not 23 inconsistent. 24 THE COURT: It is improper use of the 25 deposition. STIREWALT & ASSOCIATES P.O. BOX 18188, MINNEAPOLIS, MN 55418 1-800-553-1953 CROSS-EXAMINATION - SCOTT L. ZEGER Dr. Zeger, if you had grouped the diseases 2 differently, you would not necessarily get the same answer; correct? 3 MR. HAMLIN: Objection, asked and answered. 4 THE COURT: You may answer that. 5 6 A. All I did in the core model, working with the 7 collaborative group, was group the diseases the way I grouped them, and I $\operatorname{\mathsf{--}}$ I can't tell you what would 8 have happened if I had done it differently. I did 9 10 not do it differently. And if you had included different diseases, you 11 Q. 12 may not have included the same answer; correct -- you may not have concluded -- you might -- you may not 13 have reached the same answer; right? 14 A. I'm sorry, could you repeat the question? 15 Q. 16 Certainly. 17 If you had included different diseases in the 18 core model, you may not have reached the same answer; 19 correct? A. Well the answer I reached in the core model was 20 the smoking-attributable expenditures for the state 2.1 22 and Blue Cross Blue Shield paying for citizens of 23 Minnesota who had a specific list of diseases, the 12 diseases which we put up on the board, so that's what 24 25 we did. I don't know, you know -- I mean I don't STIREWALT & ASSOCIATES P.O. BOX 18188, MINNEAPOLIS, MN 55418 1-800-553-1953 CROSS-EXAMINATION - SCOTT L. ZEGER 5156 know what diseases, other diseases you're talking 2 about. These are the diseases Dr. Samet had identified as being caused by smoking, that's why we 3 used those diseases. 4 5 Q. If you had included other diseases, you would 6 not necessarily have reached the same answer; 7 correct? 8 MR. HAMLIN: Objection, Your Honor, asked 9 and answered. 10 THE COURT: It's been asked and answered. 11 BY MR. GARNICK: Q. Dr. Zeger, do you remember your testimony about 13 strata and the need to reach -- with the coin flipping, that it's better to take all the coin flips 14 15 together at the same time and not pick out individual 16 strata? 17 A. Well I was -- I was illustrating with the coin 18 toss the law of averages, which says that as you 19 average across more things, you get increasing --20 increasingly reliable values. Yes.

- 21 Q. If I wanted to know the percentage of dollars
- 22 attributable to smoking for women 65 and over, I
- 23 would look at the women-65-and-over strata; correct?
- 24 A. I'm sorry, could you ask the question again?
- 25 Q. If I wanted to know the percentage of dollars STIREWALT & ASSOCIATES
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- 1 attributable to women over 65 paid by Blue Cross Blue
- 2 Shield, I would look at the strata women 65 and
- 3 older; correct?
- 4 A. That's one place to look, yes.
- 5 Q. I wouldn't look at the aggregation of all these
- 6 strata; would I?
- 7 A. It depends what you're trying to do.
- 8 Q. Well if I looked at all -- at -- at the
- 9 aggregation of all this strata, I would not be
- 10 comparing like to like; would I?
- 11 A. It depends what you're trying to do.
- 12 Q. Well if I was interested in finding out the
- 13 percentage of dollars attributable to women 65 and
- 14 over paid by Blue Cross Blue Shield.
- 15 A. That's the only purpose? You don't want to also
- 16 estimate the total?
- 17 Q. No, I just -- I'm just interested in the
- 18 category of women 65 and older.
- 19 A. One -- one thing you could do would be to look
- 20 at the estimate provided here. That's one approach.
- 21 Q. And I wouldn't want to aggregate all the
- 22 percentages of dollars attributable across the
- 23 strata; would I? I wouldn't want to aggregate all of
- 24 these numbers for all the different strata; right?
- 25 A. Are you --

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- 1 Q. If I was interested in women 65 and over, I
- 2 would look at women 65 and over; correct?
- 3 A. Not necessarily. Some -- that's one way to do
- 4 it. There -- there are other ways. In fact in my
- 5 paper that Mr. Hamlin asked me about, the paper where
- 6 I was trying to estimate the rate of growth of the
- 7 AIDS epidemic in various groups, that paper laid out
- 8 a method that when you're interested in a particular
- 9 subgroup, you certainly would use information from
- 10 that subgroup, and in this case women 65 and older,
- 11 but you can also -- if -- if you're designing a
- 12 method just to estimate what's going on in subgroups,
- 13 you can also use information from other subgroups to
- 14 get a more reliable estimate. This is called -- this
- 15 is called empirical Bayes estimation, which is
- something we commonly do when we are interested in subgroups.
- This is not what we did here because what we
- 19 were interested in here were the total
- 20 smoking-attributable costs for CHD/stroke -- and this
- 21 if for -- I can't see which, if it's Blue Cross Blue
- 22 Shield or -
- 23 Q. It's Blue Cross Blue Shield, doctor.
- 24 A. Yes. So here we were interested in the total
- 25 expenditures of Blue Cross Blue Shield for

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- 1 CHD/stroke, not in a particular estimate for a
- 2 particular subgroup. We did use the estimate for the
- 3 particular subgroup, as I illustrated in the coin
- 4 tossing, to sum them up and get the overall estimate,
- 5 but we didn't design the method to give estimates --
- 6 specific estimates for the subgroups. And there are
- 7 ways to do that that were different than the
- 8 way that --
- 9 Q. Certainly --
- 10 A. -- we used.
- 11 Q. Sorry.
- 12 Certainly, if I want to compare like to like and
- 13 I was interested in women over 65, their percentage
- of dollars attributable to smoking, one way to do it
- 15 would be to look at that strata; correct?
- MR. HAMLIN: Objection, asked and answered.
- 17 THE COURT: It's been asked and answered.
- 18 Q. Doctor, I believe that we agreed that the
- 19 purpose of the refined model is to determine all or
- 20 approximately all smoking-attributable costs paid for
- 21 by the state and Blue Cross Blue Shield; correct?
- 22 A. The purpose of the model was to estimate the
- 23 smoking-attributable expenditures for Blue Cross and
- 24 for the state for the period 1978 to 1996.
- Q. All of them, or approximately all of them; STIREWALT & ASSOCIATES
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- 1 correct?
- 2 A. Their --
- 3 Approximately all of them.
- 4 Q. Okay. Now are you aware that if we ran the core
- 5 model with all medical expenditures paid by Blue
- 6 Cross Blue Shield during that timeframe, smokers
- 7 don't cost more than non-smokers?
- 8 A. It's a hypothetical that I'm not -- I'm not
- 9 aware of.
- 10 Q. You haven't done it; is that correct?
- 11 A. Haven't done what?
- 12 Q. You haven't run the core model on all medical
- 13 expenditures incurred by Blue Cross Blue Shield and
- 14 the state during the relevant time period to see if
- 15 smokers cost more than non-smokers for overall costs.
- 16 THE COURT: Counsel, counsel, please return
- 17 to the podium.
- 18 Okay. Thank you.
- 19 A. I'm sorry, could you repeat the question?
- 20 MR. GARNICK: Could you repeat the
- 21 question.
- 22 (Record read by the court reporter.)
- 23 A. We -- we ran the core model with all of the
- 24 expenditures for Minnesotans, the more than 90,000
- 25 Minnesotans that had lung cancer, COPD, and the other STIREWALT & ASSOCIATES
 - P.O. BOX 18188, MINNEAPOLIS, MN 55418 1-800-553-1953 CROSS-EXAMINATION - SCOTT L. ZEGER
 - 1 major smoking-attributable diseases, all of their

```
2
    expenditures.
   Q. Okay. I don't want to limit it to the
 3
    smoking-attributable diseases identified by Dr.
 4
 5 Samet, so my question is a little different. My
    question is rather -- is whether you ran the core
 6
7
    model on all medical expenditures incurred by and
    paid by Blue Cross Blue Shield and the state from
8
9
    19 -- whatever the dates were, 1977 --
    A.
         1978 to 1996.
10
11 Q. -- 1978 to 1996. Have you done that?
    A. That would be a silly thing to do, since the
12
    core model wasn't built to do that.
    Q. But you haven't done it; right?
14
        I've not done it.
15
    Α.
        And the core model does not address whether in
16
    Q.
17
    the Medicaid population smokers cost more than
    non-smokers, stratifying by age and gender, for all
18
19
    medical costs; does it?
20
    MR. HAMLIN: Objection, Your Honor. Could
21 we have a side-bar on this one?
22
23
24
25
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                                                    5162
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              (Side-bar discussion as follows:)
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             CROSS-EXAMINATION - SCOTT L. ZEGER
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12
               (Side-bar discussion concluded.)
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2.2
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                    STIREWALT & ASSOCIATES
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              CROSS-EXAMINATION - SCOTT L. ZEGER
               THE COURT: Do you want to read back the
 1
 2.
     question, then.
 3
               (Record read by the court reporter.)
 4
               THE COURT: You may answer that question.
          The core model looks at the smoking-attributable
 5
     expenditures using whether -- the most important
 6
 7
     piece of information that we had available to us in
     Minnesota; that is, what diseases people had, did
 8
    they have lung cancer, COPD, or did they have the
 9
10
     other diseases, and it would be absolutely
     inappropriate to use the model without that disease
11
     information because the various reduction terms that
12
13
     we calculate depend critically on that information,
14
     and it's -- and to -- to ignore the fact that there
15
     were 90,000 Minnesotans with these major smoking
16
     diseases, to not use that information, to set it
17
    aside, would make the application of the core model
18
    inappropriate. And I would not use the model without
19
     using that information. It would be -- it would be
20
     incorrect to do so, simply incorrect.
2.1
         So your testimony is that it would be incorrect
     and you didn't use the model, but in fact you didn't
2.2
23
     use the model in that respect; right?
2.4
              MR. HAMLIN: Objection, mischaracterizes
25
    his answer.
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              CROSS-EXAMINATION - SCOTT L. ZEGER
                                                      5165
 1
               THE COURT: Rephrase that question,
 2
    counsel.
    BY MR. GARNICK:
 4
          So, Dr. Zeger, you did not determine whether in
 5
     the Medicaid population smokers or non-smokers,
 6
     stratifying by age and gender, have a greater overall
 7
     medical cost; did you?
 8
               MR. HAMLIN: Objection, asked and answered.
 9
               THE COURT: Sustained.
10
          Doctor, isn't it true that in the NMES
    population, smokers 19 and older -- no, strike that.
11
```

```
Isn't it true that in the NMES population, if
13
    you take all the people 19 and over, smokers on
14
    average will be older than non-smokers?
15
    A. I'm sorry, could you repeat it?
        Isn't it true that if you take everyone in the
16
17
    NMES sample 19 and over, and you look at smokers and
    you look at non-smokers, on average smokers will be
18
19
    older than non-smokers?
    A. I don't know.
20
    Q. You didn't look?
21
    A. I don't have it in front of me. I don't know.
22
23
        You didn't look at smokers and non-smokers
    within the Medicaid population to see if they're
2.4
25
    different in ways other -- for reasons other than --
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             CROSS-EXAMINATION - SCOTT L. ZEGER
                                                    5166
    strike that.
         You didn't look at smokers and non-smokers in
 2.
    the Medicaid population to see if they're different
 3
    in ways other than their smoking; did you?
    A. I used the NMES population in the core model to
 5
 6
    estimate two reduction probabilities, and -- and I
    did that separately for age and gender and
7
8
    disease-type strata and also strata by payer, but
    that's -- that's the only way in which I
9
    differentiated the NMES population.
10
         Let -- let me just repeat the four, because I --
11
    it's age, gender, payer, which would be Medicaid
    versus private, and -- and disease, whether they
13
    have -- which of the two classifications of major
14
15
    smoking-attributable diseases that they had.
    Q. Well isn't it true in the Medicaid population
16
17
    that non-smokers contract more cancer than smokers?
18
         I don't know what --
19
         You have to be more specific in your question.
    Q. Let me ask it a different way. Isn't it true
20
    that in the Medicaid population, in the Medicaid
21
22
    subpopulation of the NMES sample, controlling for age
23
    and gender, non-smokers contract more cancer than
24
    smokers?
    A. I don't have the specific numbers in front of
25
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             CROSS-EXAMINATION - SCOTT L. ZEGER
                                                    5167
    me. I can't speculate one way or the other.
         Isn't it true that within the Medicaid
 2.
    subpopulation of the NMES sample, controlling for age
 3
 4
     and gender, non-smokers contract more circulatory
 5
    system problems than non-smokers -- than smokers?
              MR. HAMLIN: Objection, Your Honor, at this
 6
7
    point counsel is testifying. If he's got a document
 8
    that he is relying on that he wishes to show Dr.
9
    Zeger, then I think that ought to be shown to Dr.
     Zeger. Right now counsel is just going through a
10
11
     litany of alleged facts.
12
              THE COURT: Do you have something that you
13
    can show the witness?
14
              MR. GARNICK: I'm just seeing what the
15
    witness knows, Your Honor.
16
              THE COURT: No, that wasn't the question.
```

```
17
    Do you have something --
18
             MR. GARNICK: I -- I have nothing on hand
19
    to show the witness.
20
              THE COURT: Okay. The objection is
21
    sustained.
2.2
   BY MR. GARNICK:
23
   Q. Now doctor, you said that the conceptual
    structure of the model was that it goes from smoking
    to disease and then disease to costs; correct?
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             CROSS-EXAMINATION - SCOTT L. ZEGER
                                                   5168
         Correct.
 1
        Now isn't it true that there's scientific
 2
 3
    literature that recognizes that even if smoking
    causes disease, that does not mean necessarily that
 4
    smoking results in increased health costs even
 5
    controlling for age and gender?
 6
7
              MR. HAMLIN: Objection, Your Honor. Again,
8
    counsel's testifying. Objection.
              THE COURT: Do you have something you can
9
10
    show the witness, counsel?
              MR. GARNICK: I have something to show the
11
12
    witness.
13
              THE COURT: Why don't you do that.
14
              MR. GARNICK: All right.
15 BY MR. GARNICK:
    Q. Please turn to tab 18, which would be in your
16
17
    notebook.
18
              MR. HAMLIN: Your Honor, could we have an
19
    exhibit number on that?
20
             MR. GARNICK: Yes, I'm sorry. It's
21 PX16747.
   A. Would you repeat the exhibit number, sir? I'm
22
23
    sorry.
    Q. Exhibit number is PX16747. I gave you a
24
    tab -- a notebook, and it would be tab 18.
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             CROSS-EXAMINATION - SCOTT L. ZEGER
                                                   5169
         Okay. Found it.
    Α.
 1
         Okay. This is an article that was published in
 3
    the American Journal of Epidemiology; correct?
 4
   A. Yes.
   Q. And that is a peer-reviewed, respectable
 5
   journal?
 6
7
   A. Yes.
        It's a reliable authority; correct?
   Q.
 8
9
    A. The journal is reliable, yes.
   Q. Okay. And this is an article by Thomas Voigt
10
11
    and Stewert Schweitzer; correct?
12 A. Those are the authors listed here, yes.
        And this article presumably has been -- this
14
    article presumably had been peer reviewed; correct?
    A. I have no specific knowledge of that. Typically
15
16
    the American Journal of Epidemiology has its articles
17
   peer reviewed.
              MR. GARNICK: I offer it --
18
19
         It was actually already offered into evidence as
20 a learned treatise with Dr. Samet. I offer it into
21 evidence for the same purpose with Dr. Zeger.
```

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MR. HAMLIN: Your Honor, this witness has
23
   not testified to the reliability of this article, and
24
    so he's not laid the proper foundation.
25
              THE COURT: Well if it's in, it's in.
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             CROSS-EXAMINATION - SCOTT L. ZEGER
         All right. Do you dispute that it's been
1
 2.
    received?
              MR. HAMLIN: Only for the purposes of
 3
    examining Dr. Samet, but he's not laid any foundation
 4
    with -- with Dr. Zeger for the use of this article.
 5
              THE COURT: Doesn't need to lay foundation
 6
7
    to introduce the exhibit. He may need to lay a
8
    foundation before he asks questions, but the exhibit
    is in.
9
   BY MR. GARNICK:
10
11 Q. Dr. Zeger, are you familiar with this article?
12
        No, I'm not.
              THE COURT: Counsel, we'll have to take a
13
14
    short recess at this time.
              THE CLERK: Court stands in recess.
15
16
              (Recess taken.)
17
              THE CLERK: All rise. Court is again in
18
    session.
19
              (Jury enters the courtroom.)
              THE CLERK: Please be seated.
20
    BY MR. GARNICK:
2.1
        Dr. Zeger, I want to return for a moment to the
23
    core model. Now looking at exercise and depression,
24
    did Dr. Samet tell you that these two factors were
25
    unimportant?
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             CROSS-EXAMINATION - SCOTT L. ZEGER
                                                    5171
         I don't recall the specific discussion about
 1
    those two variables. I can't remember exactly what
 3
    we said. I know we had a number of discussions about
    other variables that we might control for, and I
    don't remember specifically about exercise and
 5
    depression.
 6
 7
        Isn't it true that even the refined model does
8
    not take into account either exercise or depression?
   A. That is correct.
9
10
         Isn't it true that one -- when a person does
   Q.
    take exercise and depression into account in the
12 refined model, the costs for CHD drops over 40
13
    percent?
14
              MR. HAMLIN: Objection, Your Honor, counsel
15
    is testifying.
              THE COURT: Sustained.
16
17
              MR. GARNICK: Your Honor --
18
    BY MR. GARNICK:
19
    Q. Have you reviewed the expert reports of defense
20
    experts on the statistical models?
21
    A. I have --
         I wouldn't say I've reviewed them, no.
22
23
   Q. Have you glanced at them?
    A. I've -- I've read through them quickly. I've
24
25
    not made a careful review of them.
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CROSS-EXAMINATION - SCOTT L. ZEGER
                                                     5172
         Did you see that Dr. Wecker, one of defendants'
    experts, found that when exercise and depression was
    taken into account in the refined model, the costs
 3
    for CHD went down over 40 percent?
              MR. HAMLIN: Objection, Your Honor, counsel
 5
    is testifying. He's referring to a document that's
 6
    not in evidence, and so this is an objection to form.
 7
              MR. GARNICK: A foundation will be laid by
 8
9
    defense experts.
              THE COURT: Well, yeah, but that leaves him
10
    at a distinct disadvantage. I think you maybe either
11
    wait or else give him the document, one of the two.
13
    BY MR. GARNICK:
    Q. Let's go back to the Voigt and Schweitzer
14
15
    article, Plaintiffs' Exhibit 16747, and let me direct
    your attention, Dr. Zeger, to page 1066.
17
              MR. HAMLIN: Your Honor, may we have a
18
     side-bar on this?
19
20
21
22
23
24
25
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             CROSS-EXAMINATION - SCOTT L. ZEGER
                                                     5173
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               (Side-bar discussion as follows:)
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             CROSS-EXAMINATION - SCOTT L. ZEGER
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3
               (Side-bar discussion concluded.)
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              CROSS-EXAMINATION - SCOTT L. ZEGER
                                                     5175
    BY MR. GARNICK:
 1
        Drs. Voigt and Schweitzer write "Cigarettes lead
    to increased morbidity. Some 30,000 to 40,000
    research articles attest to this fact. The degree to
 4
    which this excess morbidity is translated into excess
 5
 6
    utilization is another issue."
         Now in this passage, Drs. Voigt and Schweitzer
 7
    are in essence saying that just because smoking
 8
    causes disease does not necessarily mean that smoking
9
10
     results in excess utilization of health-care
11
     services; correct?
12
              MR. HAMLIN: Objection, counsel is
13
    mischaracterizing the document and testifying.
    Objection to form.
15
              THE COURT: You may answer that.
         You know, I don't know exactly what these
16
     authors are intending to mean. I've not read this
17
18
     article, and it's dangerous to interpret a discussion
19
    section of an article that --
2.0
         The discussion section is meant to put in
21
    context the research results, and I've not read the
    article nor -- nor do I understand what the research
22
23
    results are carefully, so I don't know exactly what
24
    they're -- you know, what -- what they're trying to
     say here. I can't interpret for you what they mean.
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             CROSS-EXAMINATION - SCOTT L. ZEGER
                                                     5176
         Dr. Zeger, this is one of the articles that
 1
 2
    defendants designated for purposes of your testimony;
 3
    correct?
 4
    A. I've not seen this article until this moment.
         So you don't know one way or another whether
 5
    this was designated by defendants for purposes of
    your testimony?
```

- 8 A. I don't.
- 9 Q. They go on they say -- they state, "The
- 10 well-known behavioral and personality differences
- 11 between smokers and non-smokers argue strongly that
- 12 simple extrapolations of morbidity ratios onto
- 12 Simple exchapolations of morbidity factor
- 13 utilization of medical services are suspect as best."
- 14 What is a morbidity ratio?
- 15 A. I'm sorry, could you -- could you show me where
- 16 this is in the --
- 17 Q. It's on the same page, towards the end of that
- 18 paragraph.

- 19 A. Again I've not read the paper. I don't know
- 20 exactly what they mean by a morbidity ratio, so I --
 - I could speculate what -- what they mean, but
- 22 I've not gone through the methods section, so I can't
- 23 tell you exactly what they mean.
- Q. Well these authors, at least, believe that there
- 25 are well-known behavioral and personality differences STIREWALT & ASSOCIATES
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5177

- between smokers and non-smokers; correct?
- 2 MR. HAMLIN: Objection to foundation, and
- 5 THE COURT: Sustained.
- 6 Q. Doctor, did your core model take into account
- 7 any well-known behavioral and personality differences
- 8 between smokers and non-smokers?
- 9 A. The core model does not take account of the
- 10 personalities of the persons in Minnesota who have
- 11 the major smoking-attributable diseases.
- 12 Q. The authors go on to say, "Two major cautions
- 13 must be made in interpreting these data. First, the
- 14 fact that the number of cigarettes smoked per day was
- not related to utilization measures serves to leave open the debate on the degree to which the excess
- 17 utilization observed among smokers is the result of
- 18 their smoking."
- 19 Dr. Zeger, in your discussions with your
- 20 colleagues, did you discuss the debate on the degree
- 21 to which the excess utilization observed among
- 22 smokers is the result of their smoking?
- 23 A. Yes.
- 24 Q. And you would agree that there is a debate on
- 25 that subject; right?

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- 1 A. I have -- I have no expert opinion about the
- 2 nature of the debate about this issue. As I said,
- 3 you know, we -- I've relied upon Dr. Samet's
- 4 testimony for the epidemiology. This -- if it's a
- 5 debate, it's either in the psychology or the
- 6 epidemiology literature, not something that I'm
- 7 familiar with and -- and not expert in.
- 8 Q. Doctor, if we imagine a time line, and if we
- 9 imagine a group of smokers who began smoking in 1928,
- 10 quit smoking in 1950, and contracted lung cancer in
- 11 1978, does it matter to your model that these smokers
- 12 ended their smoking history in 1950?

```
The -- the model estimates the proportion --
14
    excuse me, the percentage of lung cancer patients who
    are smokers, and the -- as I said in my testimony,
15
16
    the definition of smoking is whether they had smoked
    a hundred cigarettes or more in their lifetime.
17
18
     Q. So it doesn't matter if they stopped smoking
19
    before 1950; correct?
              MR. HAMLIN: Objection, asked and answered. THE COURT: It's asked and answered.
20
21
22
    Q. It doesn't matter to the model when someone
23
    starts smoking; correct?
              MR. HAMLIN: Same objection, Your Honor.
24
               THE COURT: You may answer that.
25
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             CROSS-EXAMINATION - SCOTT L. ZEGER
                                                     5179
         The definition of smoker in the core model is
 1
    have you ever smoked 100 cigarettes or not, and
     the -- the definition of smoking does not depend upon
 3
     the date that you smoked them.
 4
    Q. And the core model doesn't matter -- doesn't
 5
 6
    care --
 7
         It doesn't matter to the core model why someone
 8
    might have started smoking; correct?
9
              MR. HAMLIN: Objection, Your Honor. I
    believe that -- well, if we could have a side-bar on
10
    this one. I prefer not to discuss this without --
11
12
    without a side-bar.
13
              THE COURT: Do we really need a side-bar on
14
    the question? It's a pretty simple question.
15
             MR. HAMLIN: All right.
              THE COURT: You can answer the question.
16
         The model distinguishes smokers from
17
    non-smokers. A smoker is a person who smoked more
18
     than a hundred cigarettes. It does not -- there's no
19
20
     information, it does not have information about why
21
     somebody was a smoker.
22
    Q. And the model also doesn't care why someone
23
    stops smoking; correct?
24
    A. Same answer.
25
    Q. One of the claims in this case is that the
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             CROSS-EXAMINATION - SCOTT L. ZEGER
                                                     5180
    cigarette companies violated a special duty with
 1
    respect to smoking and health. Does your model tell
    us how much extra money, if any, that the state spent
 3
 4
     because of any alleged violation of that duty?
              MR. HAMLIN: Objection, Your Honor, now --
 5
    now I would like a side bar because it deals
 6
 7
     specifically with the court's ruling in this case.
 8
 9
10
11
12
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14
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17
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               (Side-bar discussion concluded.)
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              CROSS-EXAMINATION - SCOTT L. ZEGER
                                                     5186
               THE COURT: Members of the jury, I suppose
 1
    when you sit there, you wonder once in a while what
    we're talking about, and you should understand that
    there are two phases to any type of trial, one phase
    involves the decisions to be made by the jury with
 5
     regard to what the facts are, the other part of the
    trial involves legal questions, and that's my role or
 7
    my job. So what we usually talk about at side bar
 8
 9
    is -- and what side bar is, that's when I go over to
    the other end -- are legal questions. We're not
10
    trying to hide anything from you, but we're trying to
11
    decide specific legal questions with regard to the
12
     case. And so I think you should just be aware of
13
14
     what we're doing when we head over in that direction.
15
     I just want to call it to your attention.
16
         Counsel, go ahead.
17
              MR. GARNICK: Your Honor, I have no further
     questions.
18
19
               THE COURT: All right.
20
               MR. HAMLIN: Your Honor, we have no
21
    questions of this witness.
22
               THE COURT: You may step down.
23
               (Witness excused.)
24
               THE COURT: Are we finished with the
25
     witnesses today?
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                                                     5187
               MR. CIRESI: We are, Your Honor. We
 1
     anticipated that Dr. Zeger may go long -- may have
     gone longer. The next segment was to put in some
```

```
documents for document review by the jury. We are
 4
    prepared to do that. But I think we ought to set up
 5
    and talk to the court about how we're going to do
 6
7
    that because of my understanding of your order as to
    where the jury will be sitting to review them.
8
9
              THE COURT: Okay. Well let's take a short
10
    recess.
11
     Just so you have some idea of what's going to
    happen, and particularly for those people that -- in
12
13
    addition to the jury, they may be interested to know
    that at this point in time we're going to cease
14
    testimony of witnesses and introduce documents or
    exhibits to the jury. This process will involve
16
17
    closing down the cameras and also closing the
18
    courtroom, and the reason for that is this will allow
19
    the jury to view the documents that are going to be
20
    introduced and give them a little more freedom to
21
    move around in the courtroom. It's not that we're
22
    trying to hide any documents because what documents
23
    will be introduced will be available to anybody that
24
    wants a copy of it.
25
         We will discuss maybe in further deal the
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             CROSS-EXAMINATION - SCOTT L. ZEGER
                                                     5188
    process, but from now until --
1
        How long -- do we have any idea how long it will
 2.
 3
     take tomorrow?
 4
              MR. CIRESI: We anticipate that will take
5
    all day tomorrow, Your Honor.
              THE COURT: All right. So this document
 6
7
    review will take place the balance of today and it's
    anticipated all day tomorrow, and then Thursday
8
    morning at 9:30 we'll reconvene the testimony. At
9
    least that's the plan until now. So we'll take a
10
11
    short recess, and then if counsel would like to come
12
    into chambers, we'll figure out what we're doing
    here.
13
14
              THE CLERK: Court stands in recess.
15
               (Recess taken.)
16
17
18
19
20
21
22
23
24
25
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                                                     5189
 1
               (In-chambers conference as follows:)
 2
 3
 4
 5
 6
 7
 8
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9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25	P.O.	вох	STIREWALT & ASSOCIATES 18188, MINNEAPOLIS, MN 55418 CROSS-EXAMINATION - SCOTT L.	ZEGER
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25				5190
1 2 3 4 5 6 7 8 9 10 11 12 13	P.O.	BOX	STIREWALT & ASSOCIATES 18188, MINNEAPOLIS, MN 55418 CROSS-EXAMINATION - SCOTT L.	

14 15 16 17 18 19 20 21 22 23 24 25	P.O.	вох	18188,			SSOCIATE MN 5541	S 8 1-800-55	3-1953
			CROSS-	EXAMIN.	ATION -	SCOTT L	. ZEGER	5192
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			CROSS-	EXAMIN.	ATION -	SCOTT L	. ZEGER	5193
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18			In-ch	ambers	conver	sation c	oncluded.)	3173

19 20 21 22 23 24 2.5 STIREWALT & ASSOCIATES P.O. BOX 18188, MINNEAPOLIS, MN 55418 1-800-553-1953 CROSS-EXAMINATION - SCOTT L. ZEGER 5194 (The following proceedings were held 1 in open court without the jury present.) 2. THE CLERK: All rise. Court is again in 3 4 session. 5 Please be seated. MR. O'FALLON: Your Honor, may it please 6 7 the court. Your Honor, my name is Dan O'Fallon. I'm here on behalf of the plaintiffs. 9 What we would propose to do at this point, Your Honor, is we have basically two groups of documents 10 here. The first grouping of documents are the 11 documents of plaintiffs that have already been 12 13 admitted into evidence. What we have up in front of 14 the podium here are three copies of those documents. 15 In your order I noted that you asked for a courtesy copy. We didn't anticipate that. But what 16 17 we propose to do is to give you a courtesy copy of those documents and any documents that are admitted 18 19 today tomorrow morning, if that would be acceptable. 20 THE COURT: That's fine. 21 MR. O'FALLON: What I would propose as 22 perhaps the procedure for handling the admitted documents is that counsel for plaintiffs and 23 defendants, after we go through these other ones that 2.4 25 we're going to be moving for the first time, simply STIREWALT & ASSOCIATES P.O. BOX 18188, MINNEAPOLIS, MN 55418 1-800-553-1953 CROSS-EXAMINATION - SCOTT L. ZEGER 5195 sit down and confirm based on their lists and our lists that these are in fact the admitted documents 2. and we in fact do have three copies in each of the 3 folders so we can make those documents available to 5 the jury to review. And again, those are the documents that have already been moved into evidence 6 7 and accepted. 8 THE COURT: All right. Is that agreeable 9 with defense counsel? MR. BERNICK: Your Honor, assuming that 10 11 these documents are part of the document review 12 process, I don't have a problem with that. But I'd 13 like to address the issue of whether the currently 14 admitted documents; that is, those that have already 15 been admitted, ought to be the subject of review 16 tomorrow, and I'd like to address that at some point 17 in time. 18 THE COURT: All right. MR. BERNICK: As to the procedure that's 19 20 just been proposed, I don't have a quarrel with that. 21 THE COURT: So in any case, I certainly 22 don't want any document going to the jury that hasn't 23 been reviewed by both parties to make sure that they

```
are in fact admitted. All right.
25
              MR. O'FALLON: And we agree on that. But
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     we've done our best, but we're human, and there were
     a lot of documents.
 3
          With that, I would like to now turn to the
 4
     documents that we would ask to admit into evidence
    today. And Your Honor, the procedure I'd like to
 5
    follow is that we've divided the documents -- we've
 6
 7
    sent a list to the defendants, this was sent a couple
    weeks ago now, or maybe a week ago, of the documents.
 8
 9
    We then revised that down to a more concise set.
10
    What we have done is divided the documents into
    basically four topic sets, and within those topic
11
    sets the documents are arranged in trial exhibit
12
13
     order. And what I'd like to do is simply start into
    the first topic set, and if it would please the
14
     court, what I'll do is state the trial exhibit number
15
     of the document -- if the court would prefer, I can
16
17
     give more information about the document -- and then
18
     move its admission. Would that be acceptable?
               THE COURT: Go ahead, counsel.
19
20
               MR. O'FALLON: Okay. The first documents
    are a group that we call addiction, and the first
21
    document within that group is Trial Exhibit 3960.
22
     This is a document dated June 28th, 1963.
2.3
24
              MR. BERNICK: There's no objection to that,
25
    Your Honor.
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                                                     5197
               THE COURT: All right.
 1
               MR. O'FALLON: The second document is Trial
 2
 3
     Exhibit 3962, Your Honor. This is a document dated
     July 3rd of 1963.
 4
 5
              MR. BERNICK: Yes, there's no objection to
 6
     that.
 7
               THE COURT: It will be received.
               MR. O'FALLON: The second document, Your
 8
     Honor, is Trial Exhibit 3977. This is a document
9
10
     dated July 17th, 1963 concerning a Project HIPPO.
11
              MR. BERNICK: This document, Your Honor, is
12
     a privileged document. It's under submission to the
13
     court. It's part of the Merrill Williams set. So we
14
     would object to this document being shown to the jury
15
     tomorrow.
               MR. O'FALLON: Your Honor, we would claim
16
    that this document is in fact a scientific document
17
18
     concerning a specific project run by Battelle, HIPPO
19
     I and II, and run by the B&W defendants, B.A.T and
20
     their people.
21
               THE COURT: Is that under advisement by the
22
     court?
23
              MR. O'FALLON: I don't know. This may
24
    be -- this may be a document they claimed privilege
25
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2.4

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THE COURT: Then that will not be allowed.
1
              MR. O'FALLON: Okay. The next document is
 2.
 3
   Trial Exhibit 10155. This is a document dated 11
    third -- or November 3rd of 1977. This is a document
    that Lorillard originally lodged an objection to but
 5
    then withdrew their foundation objection by letter
 6
 7
    dated February 12th of 1998.
 8
              MR. BERNICK: Your Honor, I don't believe
9
    there's anyone from Lorillard here, and that's
    because I'm informed that at least the documents as
10
    to Lorillard that are scheduled to come up for review
11
    tomorrow, they do not have objections to.
12
13
              THE COURT: All right. That will be
14
    received.
15
              MR. O'FALLON: The next document is Trial
    Exhibit 10156. This is a document dated November 9th
16
17
    of 1976. This is a Lorillard document.
18
              THE COURT: That will be received.
19
              MR. O'FALLON: The next document is Trial
20
    Exhibit 10517. This is a document dated August 26th
    of 1959.
21
              MR. BERNICK: Does Philip Morris --
2.2
23
         This is a Philip Morris document.
              MR. DIESETH: No objection.
24
25
               MR. BERNICK: No objection to that, Your
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             CROSS-EXAMINATION - SCOTT L. ZEGER
                                                     5199
1
    Honor.
              THE COURT: It will be received.
 2.
 3
              MR. O'FALLON: Next document is Trial
    Exhibit 10575. This is a British-American Tobacco
 4
    document dated December 21st of 1959.
 5
              MR. BERNICK: Yes, Your Honor. We don't
 6
 7
    have a particular objection to that document, but
    I'll note at this point in time, and I didn't really
 8
    have the opportunity to address this at the outset,
9
10
    that at least with regard to BATCo and B&W, I assume
11
    the same may be true with regard to other defendants,
12
    we object to the volume of documents that's now being
    offered on these particular subjects. These subjects
13
14
    were gone over in detail on direct examination and on
15
    cross-examination of at least two different
16
    witnesses, and I think that it's cumulative. At a
17
    certain point this volume of documents put in the
18
    jury's lap is really designed to accomplish only one
19
    thing, which is to give them an overall volume and
20
    say, see here, here's this tremendous volume of other
21
    documents that support our case.
22
          I think it's unrealistic, when we get down to
23
    the real world of these people reviewing documents,
24
    that they're ever going to keep these documents
    separate, really distinguish their facts. I think
25
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                                                     5200
    it's also unrealistic to believe that as a practical
 1
    matter we can offer testimony with regard to each and
 3 every one of these documents in response and still
 4 get done with this trial in a viable period of time.
```

And I notice that in connection with offering up these exhibits, there is no tender that suggests to 6 7 the court that there is some unique fact which is now coming out in these documents in these given subject matters that would warrant placing this additional 9 10 burden on the parties and on the jury. So we have an overall objection on the grounds 11 12 that these documents are cumulative, at least the collection of documents coming before the jury. I 13 14 would like to make that objection as a general proposition, Your Honor, to the substance of what's 15 being offered here and not have to reiterate it with 17 regard to individual documents. 18 THE COURT: Do you want to address that question, counsel? 19 20 MR. O'FALLON: Yes. I think there's two 21 points to be made. First of all, we're dealing with 22 a case that started basically in the 1950s and 23 continued on to 1994 when we filed our complaint. The fact of the matter is is that what we have here, 24 25 given this number of documents, is but a pittance of STIREWALT & ASSOCIATES P.O. BOX 18188, MINNEAPOLIS, MN 55418 1-800-553-1953 CROSS-EXAMINATION - SCOTT L. ZEGER 1 what we've had produced to us in this litigation, some 33 million documents. We have faced the 2 allegation, I know I faced it in individual 3 depositions, and the implication when we ask 5 witnesses questions that we are hiding things, that we have cherry picked the documents, that we haven't 6 7 given a full breadth of what is actually being done. The fact of the matter is, Your Honor, all of these 8 documents are relevant to these defendants' conduct 9 over the 40 years that are involved in this case, and 10 what they set up is the ongoing duplicity that has 11 12 occurred over those periods of time. So I would actually suggest that the amount of 13 documents that we're introducing here today is not a 14 15 great deal of documents when you compare it to the amount of documents that have been produced and the 17 amount of documents that have frankly been reviewed, and their relevance to this case by defendants' own 18 19 admission through reviewing them. 2.0 THE COURT: The issue is not relevancy, the 21 issue is redundancy. 22 MR. O'FALLON: I think the important thing 23 to establish, though, is over a period of time these 24 defendants, for instance on issues of addiction, have 25 made public statements when their private internal STIREWALT & ASSOCIATES P.O. BOX 18188, MINNEAPOLIS, MN 55418 1-800-553-1953 CROSS-EXAMINATION - SCOTT L. ZEGER 5202 1 documents indicate that they believed otherwise, that indicate that they actually held different views than 2 those they have been making since 1954 and have not 3 4 retracted to this day. 5 THE COURT: Well I'll allow the document, 6 but would advise counsel that it doesn't make a lot 7 of sense to the court to belabor some issues so that in effect we'll just have accumulating redundant documents. I don't think that helps your case, I

```
don't think it helps anybody's case, doesn't help the
    jury, and it certainly doesn't help the court. So
11
    with that proviso in mind, I would hope that the
12
13
    documents that are being introduced are both relevant
    and not unnecessarily redundant.
14
15
              MR. BERNICK: Your Honor, can I have an
    overall objection on those grounds until such time as
16
17
    that particular showing is made?
              THE COURT: Yes.
18
19
              MR. BERNICK: Thank you.
20
              THE COURT: Go ahead, counsel.
21
              MR. O'FALLON: I forget where we're at.
              MR. BERNICK: 10575.
22
              MR. O'FALLON: 10575.
23
              THE COURT: 10575 has been received.
24
              MR. O'FALLON: 10576 is actually a document
25
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    that I think was attached to 10575, which is a report
    dated December 18th, 1959.
 2
              MR. BERNICK: There's no objection to that,
 3
    Your Honor.
 4
              THE COURT: That will be received.
 5
 6
              MR. O'FALLON: Next exhibit is 10921. This
    is a document dated January 23rd of 1984. This is a
7
   B.A.T document.
8
              MR. BERNICK: No objection.
9
10
              THE COURT: It will be received.
11
              MR. O'FALLON: The next document is Trial
   Exhibit 10995. This is a document dated November
12
   25th of 1977. This is another British-American
13
    Tobacco document.
              MR. BERNICK: No objection, Your Honor.
15
              THE COURT: It will be received.
16
              MR. O'FALLON: The next document is Trial
17
    Exhibit 10996. This is a document dated January 13th
18
19
    of 1976. This is also British-American Tobacco
20
    document.
21
              MR. BERNICK: No objection.
22
              THE COURT: It will be received.
              MR. O'FALLON: Plaintiffs' Exhibit 10997 is
23
    a July 22nd, 1975 document from B.A.T.
24
25
              MR. BERNICK: Yeah. Again we have no
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    objection, subject to the prior generalized
    objection. This again is a pretty good example.
    This is another paper on addiction. There are all
 3
    kinds of papers on addiction. The question is what
 4
 5
    does this incrementally accomplish in establishing
 6
     evidence to the jury.
 7
              THE COURT: Okay. That will be received.
              MR. O'FALLON: The next document is Trial
 8
    Exhibit 10998. This is a document dated July 17th of
9
10
    1975.
11
              MR. BERNICK: Again, no objection, Your
12
    Honor.
13
              THE COURT: It will be received.
              MR. O'FALLON: The next document is 10999.
14
```

```
This is a July 14th, 1975 document. This is a
16
    British-American Tobacco Company document.
              MR. BERNICK: No objection.
17
18
              THE COURT: That will be received.
              MR. O'FALLON: The next document is 11094.
19
2.0
    This is an April 23rd, 1979 document. This is again
    a British-American Tobacco document.
21
              MR. BERNICK: No objection.
22
              THE COURT: It will be received.
23
              MR. O'FALLON: The next document is 11098.
24
    This is a document dated March 22nd of 1984. This is
25
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                                                    5205
1
    another British-American Tobacco document.
              MR. BERNICK: No objection.
2.
              THE COURT: That will be received.
 3
              MR. O'FALLON: The next document is Trial
    Exhibit 1112. I don't know if I got enough ones in
 5
    there. It's --
 6
              THE COURT: I think you need one more one.
7
              MR. O'FALLON: I think so. 11112.
8
9
              THE COURT: All right.
              MR. O'FALLON: This is a document -- this
10
11
    is a May of 1963 document.
              MR. BERNICK: I have no objection.
12
              THE COURT: That will be received.
13
              MR. O'FALLON: Next document is Trial
14
    Exhibit 11113. This is a January 1962 document.
15
16
              MR. BERNICK: No objection.
              THE COURT: It will be received.
17
18
              MR. O'FALLON: Next document is Trial
    Exhibit 11116. This is a May 29th, 1963 document,
19
20
    British-American Tobacco.
              MR. BERNICK: Your Honor, we do have an
21
    objection to at least a portion of this. This is a
22
    document that I think was probably created at the
23
    TRC. The TRC was an organization kind of parallel to
24
2.5
    CTR that was funded in Britain to do -- to do
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                                                    5206
1
    tobacco-related research. It appears to be a
    typed-up version of a note from Sir Charles Ellis,
 2.
    although it's completely unsigned. The part of it
 3
    that we object to --
 5
         We won't contest the admissibility of the note
    itself, but there are some handwritten notes that are
 6
 7
    kind of inflammatory handwritten notes that appear at
    the end, and there's no foundation for who wrote
 8
    these, what they relate to, whether they really had
9
10
    anything to do with us. It says, "This is going to
11
    backfire." "This is a double double cross." It's
12
    not even clear that the handwriting is the same. And
    we would object to the admission of this document
13
14
    with the marginalia on the grounds that there's no
    foundation for it. And there's a 403 problem,
15
16
    there's potentially hearsay within hearsay. I don't
17 know what remarks these reflect and by whom.
18
         So we would object to the admission of the
    document with this hand -- handwritten comment at the
19
```

```
20
     end. We would not object to the balance of the
21
    document.
22
              THE COURT: You don't think Sir Charles was
23
     doodling, huh?
              MR. BERNICK: I don't know whose doodling
24
25
     it was. I would imagine it's not Sir Charles because
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    Sir Charles is the guy who's making the proposal.
 1
              THE COURT: Okay. What do we have?
 2
              MR. O'FALLON: Your Honor, what we --
 3
         This is a document that was produced to us out
 4
    of the B.A.T files. It is a letter by Sir Charles
 5
 6
    Ellis, apparently to Mr. Todd at the TRC. I think
    you've already had the opportunity to visit the TRC
7
    issues, but the fact of the matter is is that this is
8
9
    an admission by Mr. Ellis and this is a document
10
    that's been under B.A.T's control. This is clearly
     somebody from B.A.T's handwriting. This is a letter
11
12
     that apparently --
              THE COURT: You can represent to the court
13
14
    that this was received in exactly this manner when
     the document was produced; is that correct?
15
16
              MR. O'FALLON: Yeah. I mean as far as I
    know, we certainly didn't make that doodling on it.
17
18
    I was one --
              THE COURT: Wait a minute. Wait a minute.
19
    As far as you know. You're going to have to make a
20
21
    little stronger representation than that to me.
22
             MR. O'FALLON: Your Honor, based upon the
    way these documents were produced in England, we were
23
    given the documents for review and we copied them
24
25
    exactly as they appear. There has been no one that
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                                                    5208
 1
    has made this doodling on this document.
        As counsel understands it, this is a document as
    it appears in B.A.T's files?
 3
             MR. BERNICK: We're not saying, Your Honor,
 4
    that these notes were placed on the document at some
 5
 6
    point subsequent to its production, what we're saying
7
    is that there are many things that would be in
    BATCo's files that were not created by BATCo, that
8
9
    wouldn't be admissible under the Rules of Evidence
    because there's not a proper foundation or otherwise
10
11
    it's not in compliance with the rules. And no
    foundation has been created, and certainly no showing
12
     of relevance has been made based upon facts as to
13
14
    which there's a foundation that would warrant the
15
     admission of these marginalia.
16
         We are not contesting that this is the form in
17
    which the document was produced.
              THE COURT: This was in your files as a
18
19
    part of your normal file-keeping. And would you call
    this an admission?
20
21
              MR. BERNICK: No. That's really what I'd
22
    like to address. I believe, because BATCo is a
23
    party, if BATCo created a document, it does not have
    to be a business record for it to come in because it
```

```
would be non-hearsay to begin with, it would be a
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             CROSS-EXAMINATION - SCOTT L. ZEGER
    statement of a party. With regard to this portion of
    the document, though, we don't even know that it's a
     statement of a party. These are simply marginalia
 4
     that got placed on the document at some point in
 5
    time.
          It's clearly not a routine business record. The
 6
 7
    drafting process itself may have been routine, but
    the marginalia, there's no foundation to establish
 8
    that people tend to put marginalia on in the ordinary
9
10
    course of business. In this case we don't even know
11
    who wrote the marginalia. And on that point, I don't
    think Your Honor could find, based upon the record as
12
13
    it exists today, that the marginalia are in fact
14
    statements of the party. All we know is the document
15
    came from our file.
16
         Now with regard to the text of the document, Sir
    Charles wrote that, and he was a consultant to BATCo,
17
    and we would acknowledge that those are -- that's
18
19
    material that can come before the jury, but we simply
20
    don't know who wrote the marginalia. No one knows
21
    who wrote the marginalia.
              MR. O'FALLON: Your Honor, if I could shed
22
    some light on that last point. Based on the
2.3
    information that was provided, that was provided in
24
25
    both hard-copy form and electronic format, I believe
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    B.A.T has said that the handwritten portion of the
    document was written by G. F. Todd of TRC. If so, I
    think it comes in just like all the other TRC
    documents, because TRC was basically an agent of the
 4
    industry, certainly an agent of the British industry.
 5
 6
          Is that the information you have?
 7
              MR. BERNICK: No.
8
              MR. O'FALLON: That's what I have on this
9
    one.
              THE COURT: That's not your information?
10
11
              MR. BERNICK: No. I don't believe that
12
    that is --
13
        I do not know who the author of these notes is.
    I'm not sure what's being read. It could equally
    well be something that was entered into the
15
16
     information based on who the recipient of the
17
     document is.
18
              THE COURT: What's your source of
19
    information, counsel?
20
              MR. O'FALLON: What it is is the electronic
21
    foundation information that we were required to get
22
    when a party objected. I can get you tomorrow a hard
23
    copy of that.
24
              THE COURT: Maybe you better do that.
25
    Let's wait until tomorrow, and you get me that
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                                                     5211
```

```
1
    information.
 2
              MR. O'FALLON: Sure.
              THE COURT: All right. Let's move on.
3
 4
              MR. O'FALLON: Trial Exhibit 11126. This
    is a document dated February 18th of 1977.
5
              MR. BERNICK: Yes. Subject to the prior
 6
    remarks I made, no objection to 11126.
7
              THE COURT: It will be received.
 8
              MR. O'FALLON: Excuse me, Your Honor, if I
9
10
    could just take a second to make sure I have a note
    on that last document.
11
         Next document is Trial Exhibit 11130.
12
13
              MR. BERNICK: No objection to that. Again,
    Dr. Oldman is a psychologist. He wrote on many of
14
    the same subjects as Dr. Creighton, Dr. Cullmer and a
15
16
    whole bunch of other people. We believe it's
17
    cumulative. There's no particular objection with
18
    regard to that document.
19
              THE COURT: We'll receive that.
              MR. O'FALLON: Trial Exhibit 11332. This
20
21
    is a November 8th, 1967 document.
              MR. BERNICK: No objection.
22
23
              THE COURT: That will be received.
              MR. O'FALLON: Trial Exhibit 11385. This
24
25
    is an April 9th, 1976 document, another B.A.T
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                                                    5212
1
    document.
 2
              MR. BERNICK: I'm sorry, 113 --
              MR. O'FALLON: 11385.
 3
 4
              MR. BERNICK: No objection.
              THE COURT: That will be received.
 5
              MR. O'FALLON: Next document is 11388.
 6
              MR. BERNICK: No objection.
7
              THE COURT: That will be received.
8
              MR. O'FALLON: Next document is Trial
9
10
    Exhibit 11409.
11
              MR. BERNICK: No objection.
12
              THE COURT: That will be received.
13
              MR. O'FALLON: Next document is Trial
14
    Exhibit 11413.
              MR. BERNICK: No objection.
15
16
              THE COURT: That will be received.
17
              MR. O'FALLON: Next document is Trial
18
    Exhibit 11431.
19
              MR. BERNICK: No objection.
              THE COURT: That will be received.
20
              MR. O'FALLON: Next document is Trial
21
22
    Exhibit 11650.
              MR. BERNICK: That is a PM document.
23
24
              MR. O'FALLON: This is a PM document.
25
              MR. BERNICK: I don't believe there's any
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                                                    5213
    objection to that.
1
              THE COURT: That will be received.
 2
              MR. O'FALLON: Next document is Trial
 3
 4 Exhibit 11792. This is a Liggett document, I
    believe.
```

```
6
              MR. KELLY: No objection.
              THE COURT: That will be received.
7
              MR. O'FALLON: Next document is 11878.
8
9
              MR. BERNICK: That's a PM document. I
    don't believe there's an objection to that.
10
11
              THE COURT: It will be received.
              MR. O'FALLON: Next document is 11939.
12
              MR. BERNICK: No objection.
13
              THE COURT: That will be received.
14
              MR. O'FALLON: The next document is Trial
15
16 Exhibit 12231.
17
              MR. BERNICK: 12231?
              MR. O'FALLON: That is correct.
18
              MR. BERNICK: 12231 is a Reynolds document.
19
    I don't believe there's an objection to that.
20
21
              THE COURT: That will be received.
22
              MR. O'FALLON: Next document is 12434, this
is a B&W document.
24
              MR. BERNICK: 12434. No objection.
25
              THE COURT: That will be received.
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                                                   5214
              MR. O'FALLON: Next document is Trial
1
    Exhibit 12476. This is a Reynolds document.
              MR. BERNICK: I don't believe there's --
 3
              MS. WALKER: No objection.
 4
              THE COURT: That will be received.
 5
 6
              MR. O'FALLON: Next document is Trial
7
    Exhibit 12499. This is another Reynolds' document.
             MR. BERNICK: 499? No objection to that
8
9
    one.
              MR. O'FALLON: 12499.
10
              MR. BERNICK: 12499.
11
              MR. O'FALLON: Okay?
12
              THE COURT: Is that all right?
13
              MR. BERNICK: Yes, Your Honor.
14
15
              THE COURT: Okay. That will be received.
16
              MR. O'FALLON: Next document is Trial
17 Exhibit 12523.
18
              MR. BERNICK: There's no objection to that.
              THE COURT: That will be received.
19
              MR. O'FALLON: Next document is Trial
20
21
   Exhibit 12661.
2.2
              MR. BERNICK: No objection to that one.
23
    It's a Reynolds document.
24
              THE COURT: That will be received.
25
              MR. O'FALLON: Next document is 12663.
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                                                    5215
 1
              MR. BERNICK: No objection to that.
              THE COURT: That will be received.
              MR. O'FALLON: Next document is Trial
 3
 4
    Exhibit 12675.
              MR. BERNICK: No objection.
 5
              THE COURT: That will be received.
 6
7
              MR. O'FALLON: Next document is Trial
   Exhibit 12743.
 8
9
              MR. BERNICK: No objection to that either.
10 It's a Reynolds document.
```

```
THE COURT: That will be received.
11
              MR. O'FALLON: Next document is Trial
12
13
    Exhibit 12944, another RJR.
14
              MR. BERNICK: No objection to that.
              THE COURT: That will be received.
15
16
              MR. O'FALLON: Next document is Trial
17
    Exhibit 13433.
18
              MR. BERNICK: No objection to that.
              THE COURT: That will be received.
19
              MR. O'FALLON: Next document is Trial
20
21
    Exhibit 13435.
              MR. BERNICK: There's no objection to that
22
23
    one.
24
              THE COURT: That will be received.
              MR. O'FALLON: Next one is Trial Exhibit
25
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1
    13458.
              MR. BERNICK: There is an objection to that
 2.
    one, Your Honor. This is a report that was prepared
 3
    by a marketing research organization called
 4
 5
    Kwechanski, and it was prepared for the Imperial
 6
    Tobacco Company, which is a Canadian tobacco company.
7
    Now in the structure of things, part of the stock of
    Imperial is owned by -- I'm not sure of what entity
8
    at this point in time, but it's been -- maybe -- is
9
10
    it --
11
              THE COURT: Does anyone want to lay claim
12
    t.o --
              MR. CORRIGAN: I'll lay claim to this
13
    extent, Your Honor.
14
              THE COURT: All right.
15
              MR. CORRIGAN: Part of the stock of
16
17
    Imperial Tobacco is held indirectly by B.A.T
18
    Industries through another Canadian company in which
    it owns stock called IMASCO. In fact B.A.T
19
20
    Industries owns slightly less than 50 percent of the
21
    stock of Imperial.
22
              THE COURT: Who owns controlling interest?
23
              MR. CORRIGAN: Pardon me, Your Honor?
24
              THE COURT: Who owns controlling interest?
25
              MR. CORRIGAN: A company called IMASCO.
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                                                    5217
1
              THE COURT: And what's B.A.T's interest in
 2
    IMASCO?
 3
              MR. CORRIGAN: Slightly less than 50
 4
    percent.
 5
              THE COURT: But my question was who owns
 6
    controlling interest.
7
             MR. CORRIGAN: I don't believe there is any
8
    stockholder that owns more than 50 percent, but I
    also don't believe there's any stockholder that owns
9
10
    more than B.A.T Industries.
              THE COURT: I didn't ask about 50 percent,
11
12
    counsel, I asked about controlling interest.
13
              MR. CORRIGAN: Well I don't -- I can't tell
14 you who owns controlling interest if it owns less
15 than 50 percent, Your Honor.
```

```
16
              MR. BERNICK: Okay. Your Honor, maybe if I
17
   can --
18
        I believe that in this area, as has been
19
     explained to me, there is not only an issue of
    whatever control can take place through corporate
20
21
    agreement, but under Canadian law there are also
    restrictions on the ability of any shareholder to
22
23
    exercise control over the affairs of a Canadian
24
    corporation. The objection that I'm going to make,
25
    Your Honor, to this document, though I don't believe
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 1
     it's going to turn on the niceties of Canadian law
 2
     and the ownership relationship --
              THE COURT: I'm relieved to hear that.
 3
              MR. BERNICK: -- this is a document that
 4
 5
    was created for Imperial by an outside marketing
 6
    organization and it relates to a survey that was done
7
    in connection with youth. This deals with youth
 8
     smoking. I believe --
              THE COURT: I'm familiar with the document.
9
10
              MR. BERNICK: I'm sorry? Yeah.
          I believe that the document should not come in
11
12
    for at least two reasons. Number one, it is a
13
    hearsay document. As a matter of fact, there's two
    layers of hearsay; it's an outside marketing
14
    organization acting as an organization for a company
15
16
    that's not a party to this case. And I don't believe
17
    there's a cure to the hearsay problem that's been
18
    established. But much more fundamentally, this is a
19
    project that was undertaken in connection with
    Canadian brands and Canadian activities in the
20
    Canadian marketplace, and Your Honor has specifically
21
22
    ruled that when it comes to international activity,
23
    international activities are not coming before this
    jury. The other side says they've not had an
24
25
    opportunity to conduct discovery into those matters,
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 1
    we are not going to have an opportunity to deal with
 2
    foreign markets in this case, I believe Your Honor
 3
    has consistently ruled on that. So we have a hearsay
    activity pertaining to a market that's not at issue
 4
 5
    in this case. I believe for both of those reasons
 6
    this document should not come in.
7
          If somebody had been able to establish that this
 8
    particular research document had been used by Brown &
    Williamson in connection with its brands here in the
9
10
    United States, if that foundation were to be laid
11
    through a witness, it might be a different
12
    proposition. I don't believe that any such testimony
13
    will be offered in this case.
14
              MR. O'FALLON: Your Honor, I'd just like to
15
    make two points. First of all, based on the
    information I have, B&W has not objected to the
16
17
    foundation of this document, so I first of all would
    like to have the opportunity tonight to confirm that
18
19
     and provide the specific documentation.
20
         Do you have any indication that you in fact
```

```
21
    objected?
22
              MR. BERNICK: We did not object on the
23 grounds of foundation. But, you know, the arguments
24
    on hearsay upon hearsay were expressly reserved in
    Your Honor's determinations.
25
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                                                    5220
 1
              MR. O'FALLON: Number two, the group
    intended to share its research, and the fact of the
 2
    matter is that it just seems to be that kind of
 3
    research where it was done by Imperial and then ended
 4
    up in the files of B&W. This was in their files.
 5
               THE COURT: This was in the files of B&W?
 6
7
              MR. O'FALLON: Yes.
8
              THE COURT: Okay.
9
              MR. O'FALLON: Correct? According to the
10
    information I have --
11
              MR. BERNICK: It was produced from our
12
    files.
13
              MR. O'FALLON: Yes, it was produced from
14
    your files.
15
              MR. BERNICK: But I believe the statement
16
    that was made about sharing research is incorrect.
17
    The research-sharing arrangement was a specific
18
    arrangement which was governed by an agreement, and
19
    the agreement pertained to research that was
20
    conducted under the auspices of the Southampton
21
    research program, and there were specific items of
22
    research including research reports that were subject
23
    to -- subject to a cost-reimbursement arrangement,
24
    and under that arrangement Brown & Williamson had to
    bear costs, Brown & Williamson also had the
25
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                                                     5221
    opportunity to speak to what kind of research got
 1
    done on a group-wide basis. That was a formalized
    program. It led to numerous research reports coming
    to Brown & Williamson as part of the group-wide
 4
    research.
 5
         This is not part of that effort, it's not part
 6
 7
    of that arrangement, and it's wrong to say that it
    was. This is a document that came to Brown &
 8
    Williamson on informal basis. Kwechanski did the
9
10
   research, it was done for Imperial, it ended up in
11
    Brown & Williamson's files.
12
          If there were to be testimony from the witness
13
    on the stand that in some fashion Brown & Williamson
14
    actually used this research for its activities in the
15
    United States, that it had that kind of impact, I
16
    think we would be in a very different circumstance.
17
    But we're talking about putting this document in
18
    before the jury in isolation with no such
    foundational testimony, none at all, so it just comes
19
     in. And that's the problem, that's the prejudice,
20
    and it's wrong because it pertains to a different
21
22
    market and it's hearsay. And it's not foundation
23
    that actually had been conducted on the U.S.
24
    marketplace. If they could lay the foundation, I
25
    think it might be a different issue than what's being
```

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presented, but no foundation has been laid.
         And the purpose of this is just unitary. It's
    very simple. They want to say, see, these people
 3
 4
    were marketing to kids and it's of relevance in this
    case. That's not what the document shows.
 5
 6
              THE COURT: Isn't that what the document is
7
    about though?
              MR. BERNICK: No. The document is a
8
9
    research program. It's a research program. They're
    trying to determine what are the activities, what is
10
11
    the nature of the consumption habits of that
12
    particular group of people.
              THE COURT: Of children under the age --
13
     well I think, what, 16 -- 17-year-olds, as I
14
15
16
              MR. BERNICK: They introduced -- I'm not --
17
     Your Honor, I'm not sugar-coating --
              THE COURT: Yeah.
18
              19
20
    They were looking at 16 --
21
              THE COURT: I know what they were looking
22
              MR. BERNICK: They were looking at 16- and
23
    17-year-olds. Okay? But it's a very different
2.4
    proposition that the research was done, it was done
25
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    for Imperial Tobacco, and then to argue to the jury
    that Brown & Williamson commissioned this research or
 2.
     this had anything to do with Brown & Williamson's
 3
 4
    business.
              THE COURT: I don't think they're -- I
 5
    don't think they're saying that. I think what
 6
7
    they're -- I'm guessing what they would be saying is
    you get a document that was done, commissioned by a
8
9
    company that is owned -- I'm not sure whether it's
    controlled or not -- by one of the B.A.T companies,
10
11
     and that this information was submitted to Brown &
12
    Williamson, which is not -- which has been done in
13
    the past, and it relates to a study regarding youth
14
     smoking. And I would assume that that's the issue.
15
              MR. BERNICK: Yeah. But that's exactly why
16
     the document should not come in, Your Honor, because
17
     it suggests to the jury that plaintiffs are correct
18
     when they say Brown & Williamson marketed to youth,
19
     and there's nothing about that document that was
20
     commissioned by Brown & Williamson.
21
              THE COURT: Well --
22
              MR. BERNICK: There's nothing about that
23
    document that suggests that Brown & Williamson ever
24
    marketed to kids. But that's the purpose for which
25
     it will be tendered to the jury. And that is exactly
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why there is a relevance problem and a Rule 403

```
problem and an international territory and market
    problem and hearsay problem.
 3
              THE COURT: I don't see any relevancy
 4
5
    problem. When -- if --
         If your company accumulates information with
 6
7
    respect to the results of surveys and marketing that
    involve the sale of cigarettes to youth, I don't find
8
    that irrelevant, and I think that's the issue.
9
    They're not saying that this proves that you're
10
    marketing to youth. I think what they're saying is
11
    that you are looking at and accumulating information
12
13
    with regard to the results of surveys and interviews
14
    relating to youth, which is a different story.
15
              MR. BERNICK: Well that's not --
              THE COURT: And that's a very relevant
16
17
    issue in this case; that is, as far as what they are
    claiming. They're claiming that you're marketing to
18
19
    youth; right? That's the claim.
20
              MR. O'FALLON: Yes. And furthermore, Your
21
    Honor, we will introduce documents later on in this
22
    case that show that in fact B&W did direct certain of
    their cigarette brands, including Kools, to the 16-
23
    to 24-year-old market.
2.4
25
              THE COURT: Let's not get into that.
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                                                     5225
              MR. O'FALLON: No. But what you said is
 1
 2.
    exactly right, this shows that they're actively
    tracking the youth market and had information within
 3
    their files concerning the youth market and knew a
 4
 5
    great deal about the youth market.
              THE COURT: Yeah. I would --
 6
7
          I'll think about that a little bit, but I guess
    I would tend to say that it's kind of relevant to the
8
9
    case if you start accumulating studies and marketing
     analysis of 16- and 17-year-olds.
10
11
              MR. BERNICK: I would urge Your Honor --
              THE COURT: I'll think about it.
12
13
              MR. BERNICK: -- to think about this,
14
    because I think we're into a balancing situation.
              THE COURT: I know, I know, I know. And,
15
    you know, I understand your concern and I'm a little
16
17
    concerned too.
18
              MR. BERNICK: Thank you.
19
              MR. O'FALLON: Your Honor, the only other
20
    point I'd make on that document, there were numerous
21
    marketing-type conferences also where there was a
22
    great sharing of information, but I'm not sure that's
23
    relevant to what you're concerned about.
24
              THE COURT: Okay. Let's not beat a dead
25
    horse here. Let's move on.
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                                                    5226
               MR. O'FALLON: The next document --
 1
              THE COURT: I'll take that under
 2
 3
    advisement.
 4
              MR. O'FALLON: The next document is Trial
 5
     Exhibit 13787.
 6
              MR. BERNICK: 1377 --
```

```
7
              MR. O'FALLON: 787.
 8
              MR. BERNICK: 787.
9
              MR. O'FALLON: 13787.
10
              MR. BERNICK: Okay.
              MR. O'FALLON: That's a B&W document.
11
12
              MR. BERNICK: No objection to that.
              THE COURT: That will be received.
13
14
              MR. O'FALLON: Next document is 13809.
              MR. BERNICK: No objection.
15
              THE COURT: That will be received.
16
17
              MR. O'FALLON: Next document is 13873.
18
              MR. BERNICK: No objection.
19
              THE COURT: That will be received.
20
              MR. O'FALLON: Next document is Trial
21
     Exhibit 13904.
2.2
               MR. BERNICK: No objection.
               THE COURT: That will be received.
2.3
               MR. O'FALLON: The next document is Trial
2.4
25
    Exhibit 13905.
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                                                     5227
               MR. BERNICK: No objection.
 1
               THE COURT: That will be received.
 2.
 3
               MR. O'FALLON: The next document is Trial
 4
    Exhibit 13986.
              MR. BERNICK: 9 --
 5
              MR. O'FALLON: 13986.
 6
 7
               MR. BERNICK: Your Honor, this is a hearsay
    within hearsay problem again. This is a report that
 8
    was done by an advertising agency in August of 1977.
9
10
    The advertising agency is called Hawkins, McCain &
     Blumenthal, and they purport to write a conference
11
    report -- it's unclear from the report exactly
12
13
     whether the report reflects the content of the
14
     conference or the content that they would hope that
15
    the conference would reflect. But there is no
    solution to the hearsay within the hearsay problem.
16
17
    This is a document that is a hearsay document, it
18 purports to reflect a meeting where hearsay
19
    statements would have been made by people who are not
20
    parties to this case.
21
          We did not object on grounds of lack of
2.2
    foundation. We do have an objection, though, on
23
    grounds of hearsay within hearsay.
              MR. O'FALLON: Your Honor, this appears to
24
25
    be a document that actually records a conference
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    between this particular ad agency, Hawkins, McCain &
 1
    Blumenthal, and B&W, and if I'm understanding this
     correctly, the place of the conference was B&W's
 4
     offices in Louisville, and we have Brown & Williamson
 5
    listed as the client and then we have the people who
 6
    are representing that client, an L. Lewis, an L.
    Glass and an L. Reynolds, as well as the people
 7
 8
    representing the agency. I would submit that what
 9
    this is is a document that was produced within the
10
    course of the agency of Hawkins, McCain & Blumenthal.
11
    They -- it appears that they have been called there
```

to have a conference with their clients, and this is 12 13 the result of that conference. 14 THE COURT: I don't see where your hearsay 15 within hearsay is, then, counsel. MR. BERNICK: I'm sorry? 16 17 THE COURT: I don't see where you get 18 hearsay within hearsay there. MR. BERNICK: It's a document that was not 19 20 created by Brown & Williamson but by the outside organization, so it's hearsay. It purports to 21 22 reflect the content of a meeting where hearsay 23 statements would have been made. 24 THE COURT: By your client. MR. BERNICK: Perhaps by my client, but 25 STIREWALT & ASSOCIATES P.O. BOX 18188, MINNEAPOLIS, MN 55418 1-800-553-1953 CROSS-EXAMINATION - SCOTT L. ZEGER 5229 also by the people who were attending for the 2. advertising agency. And this -- and this is exactly --3 It is the latter that is the concern for the 4 following reasons: If you take a look at what then 5 is attached to the document -- to the memo, it's not 6 a set of minutes. It's a series of bullet points, 7 8 bullet-point ideas. You can't tell whether this even is what got said at the meeting as opposed to what 9 the advertising agency was pushing at the meeting. 10 The only thing that says or suggests that it may have 11 12 been was what was said, and we don't know --13 The covering memo, it says "To receive "--14 "Purpose: To receive and participate in an R&D 15 briefing of the LTS product in three major areas, one, pharmacology effects, two, technology, three, 16 satisfaction research." And you get to the 17 18 discussion, the only discussion that's recorded is on 19 the very cover memo, says "Discussion," first bullet, "These three areas were fully explored." Okay. Next 20 bullet, "Some type of quantitative research may be 21 2.2 necessary to place accurate, if possible, dimensions 23 on satisfaction. Multi-dimensionality scaling will 24 suggest that there's one method." So you never really get whether the attachment was their agenda or 25 STIREWALT & ASSOCIATES P.O. BOX 18188, MINNEAPOLIS, MN 55418 1-800-553-1953 CROSS-EXAMINATION - SCOTT L. ZEGER 5230 what they wanted to accomplish or what got said by them or by B&W. 2. This is not really a set of conference minutes, 3 4 and that's the deceptive part of it, is that they 5 will hold this out as being here's what we all agreed to, but there's nothing in the document that actually 6 7 says that. That's the problem with dealing with 8 hearsay documents, because the people aren't here, 9 aren't on the stand, and the document that's offered in isolation, you really can't tell what was said at 10 11 that meeting. THE COURT: But this is your ad agency 12 13 reporting what you and your agency discussed. 14 MR. BERNICK: It is --15 THE COURT: And the fact that you're not 16 happy with the competency of your ad agency doesn't

```
17
    seem to be relevant.
18
             MR. BERNICK: But that's an argument,
19
    that's a point, Your Honor, that goes to the weight
20
    of the evidence, the evidence were it actually
    admissible on the proposition that this is what
21
    actually got said.
22
23
          Yes, if we had the person on the stand and he
24
    said yes, this is what got said by B&W at the
    meeting, then your argument I think would be correct.
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    Our unhappiness with what they say goes to the weight
 1
    of the evidence. Our problem is that because this is
 2
 3
     a hearsay document and it contains a recitation of
    hearsay, we don't know what was said at that meeting,
 4
    we don't know whether to be unhappy with it or sad
 5
    about it or anything because it hasn't cleared the
 6
7
    burden for being admitted as an exception to the
    hearsay rule. That's the problem.
8
               THE COURT: But it's your client talking.
9
10
              MR. BERNICK: No, we don't know that.
11
    That's not what the document says.
              THE COURT: Well the document says that the
12
13
    meeting was between your client and your client's ad
14
    agency.
              MR. BERNICK: Right. And then who said
15
    what? You can't figure it out from the document.
16
17
              THE COURT: Well then your client's ad
18
    agency should learn to write better. But that's not
19
    the issue.
2.0
              MR. BERNICK: Well our ad agency should
    learn to write better, that may be true, but it
2.1
    doesn't solve the evidentiary problem that because
2.2
23
    they didn't write well and we don't know what was
24
     said, you can't tell the jury that anything was said.
    They'll stand up in closing argument and say, "Look
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    what those people, you know, what those people agreed
 1
 2
     to," and they won't know if that's true.
 3
              MR. CIRESI: Now I was just sitting here
 4
    quietly and listening to you, but it's not hearsay,
 5
    it's 801(b)(2), it's a representative admission by an
    agency acting within the scope of its agency. It's
 6
7
    not hearsay.
               THE COURT: Counsel, if you're going to
 8
9
     talk, you're going to have to get a microphone.
10
              MR. CIRESI: I'm sorry, Your Honor.
11
              THE COURT: I've been waiting a long time
12
     to say that to Mr. Ciresi.
13
              (Laughter.)
14
              MR. BERNICK: That's our argument on the
15
    document.
              THE COURT: Okay, I don't buy it. That
16
17
    will be received.
18
              MR. O'FALLON: I was just going to say what
19
   Mr. Ciresi said.
20
         The next document is Trial Exhibit 14334.
21
              MR. BERNICK: Just give me a half a second
```

```
here. I'm sorry.
23
              MR. O'FALLON: Sure.
24
              MR. BERNICK: 14324?
25
              MR. O'FALLON: Yes. That's a TI document.
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               MR. BERNICK: I don't believe that they
 1
    have an objection. I've not been informed of any
 2.
     objection, Your Honor, that they have.
 3
              THE COURT: That will be received. I'm
 4
 5
     sorry --
              MR. BERNICK: 14, you said, 324?
 6
              MR. O'FALLON: Let me go back to it.
7
8
    14334.
9
              MR. BERNICK: 14334.
10
              MR. O'FALLON: Next document is 14350, this
11
    is another TI press release.
12
              THE COURT: I'm sorry, is 14334 okay?
13
         All right. That will be received.
               MR. BERNICK: I'm sorry, Your Honor, I'm
14
15
    little bit leery of the TI documents because I know
16
    that all the other parties have been consulted with
    regard to the documents. I am not really sure about
17
18
    TI. What I'm wondering is whether we can send
    somebody out, even right now, to find out about the
19
    TI documents. I think there are only four of them.
20
21
              THE COURT: Where is TI?
22
              MR. BERNICK: Well we'll have to get in
23
    touch with the people who represent them and take a
24
    look at the documents.
25
              THE COURT: It's not like they don't know
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    what's going on; is it? I mean don't they -- don't
1
    they know what's happening here?
 2
 3
              MR. BERNICK: Yeah.
 4
              THE COURT: I think it would be
    appropriate, if they have an objection, that they
 5
    should be present.
 6
              MR. BERNICK: Would it be all right if we
7
8
    passed over those for now and came back to them at
9
    the end of the hour?
              THE COURT: All right. Let's pass over the
10
11
    TI documents. I'm not particularly happy that we
12
    have to do it that way, but --
              MR. BERNICK: I understand.
13
              MR. O'FALLON: So we'll pass on 14334.
14
15
    14350 is also a TI document we'll pass on for now.
              MR. BERNICK: Right.
16
17
              MR. O'FALLON: 14384 is also a TI document
18
    we'll pass on. Do you have that, 14384?
19
              MR. BERNICK: Yes.
              MR. O'FALLON: And the next document is
20
     18302. This is another TI document as well.
21
22
              MR. BERNICK: 18 --
23
              MR. O'FALLON: 302.
24
              MR. BERNICK: 18302. Okay. Is that all in
25
    that category?
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                                                     5235
 1
              MR. O'FALLON: Yeah. Let me just -- Mr.
     Gordon is handing me -- let me just --
 2
3
         Did I hit 13005?
               MR. BERNICK: 13 --
 4
               MR. O'FALLON: Did I miss that one?
 5
               THE COURT: No, I don't show 13005.
 6
7
               MR. O'FALLON: I'm sorry, I inadvertently
 8
     flipped over that one. 13005, this is an RJR
9
    document.
              MR. BERNICK: I don't believe there's any
10
     objection to that.
11
              THE COURT: That will be received.
12
13
              MR. BERNICK: While we're on a cleanup, the
14
    document -- the document after 12434 was which one?
15
              THE COURT: Well I have 12476.
              MR. BERNICK: Okay.
17
              MR. O'FALLON: Let me just confirm that.
              MR. BERNICK: Okay. Got it.
18
              MR. O'FALLON: Okay.
19
20
              MR. BERNICK: Your Honor, I don't know if
21
    this would be an appropriate time, but I did have
22
    some comment on this category approach and some other
23
    general comments on the documents that we're talking
    about. I can do it now or at the end, or at the end
24
    of a category, whatever is more appropriate.
25
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1
              THE COURT: I don't have any preference.
 2
    Go ahead.
              MR. BERNICK: Would this be all right?
 3
              THE COURT: Go ahead.
 4
               MR. BERNICK: We don't believe it's
 5
    appropriate to have these documents categorized in
 6
    any fashion. That was not part of the designation
7
8
    process, it was not part of the court's order. It
9
    constitutes essentially a contention by counsel that
    the documents actually stand for some proposition
10
    relating to addiction, low tar, compensation,
11
12
    nicotine, and that really is exactly the kind of
13
    problem that we were concerned with that might creep
14
    into this procedure. These are counsel's
15
    categorizations and counsel's contentions, and we
16
    don't think that should be part of this document
17
    process.
18
          We believe that the documents, if they are to be
19
    submitted to the jury, should be submitted in boxes,
20
    and the jury can go through the documents and draw
21
    their own conclusions. Otherwise we're back into the
22
    world of making contentions concerning the documents.
23
              THE COURT: I'm not sure I understand what
24
    you're saying that they're about to do. Are you
25
    saying that they're going to --
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 1
               (Box of exhibits to be presented to the
     jury was held up to the court.)
```

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3
              THE COURT: Okay. I see what you're saying
 4
    now. I don't think that those signs should be on the
    documents. You can submit the documents and you can
 5
    submit them in any order that you want, but I don't
    think it is appropriate for you to designate their
7
    classifications to the jury.
8
              MR. CIRESI: Then we will remove them, Your
9
    Honor. The previous times we've done that, that's
10
    what we've done, because it helps the jury to know
11
    what they're being introduced for, just as you do
12
13
    with the witness.
              THE COURT: I understand. But --
14
15
              MR. CIRESI: I understand --
              THE COURT: -- they are objecting and I
16
17
    think --
18
              MR. CIRESI: That's fine. We'll take them
19
    off.
20
              THE COURT: Okay.
21
              MR. BERNICK: With regard to the --
22
         We have the documents that are newly being
23
    admitted now, and we also have a collection of
24
    documents that they apparently want the jury to look
    at tomorrow that already have been admitted into
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                                                    5238
    evidence.
1
              THE COURT: All right.
 2.
 3
              MR. BERNICK: Now we would object to that
   process, and for the following reasons: Number one
 4
    is that their most current list of designations does
 5
    not include those documents. Those are documents
    that are not included in predesignation. Number
7
8
    two --
              THE COURT: Excuse me. The documents that
9
10
    have already been introduced?
              MR. BERNICK: That's correct, they're not
11
12
    part of the predesignation.
              THE COURT: You're hardly surprised.
13
14
              MR. BERNICK: I'm sorry?
15
              THE COURT: You're hardly surprised, I take
16
    it.
              MR. BERNICK: No, I am a little surprised
17
18
   because I believe these documents were originally
19
    included and they were taken off. But that is not
    what we're dealing with here this afternoon. That's
20
21
    number one.
22
         Number two is that these do not include our
23
    admitted documents during cross-examination. These
24
    are just their admitted documents during their direct
    examination or their redirect examination. So this
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    is not the full set of what's out there, this is just
 1
 2
    their selections from what's out there.
         Number three, I thought that the purpose -- we
 3
 4
   believed that the purpose of this exercise was to
 5
    enable the jury to consider additional documentation
    in a sense as it would be coming into evidence; that
    is, materials that they've not seen before. The only
```

purpose that I can see or that we can see for showing 9 them already-admitted documents is to have them in a sense do exactly what they would do for the first 10 11 time when they retire to deliberate; that is, to consider the evidence that's already been admitted 12 13 and start to draw connections and draw conclusions 14 about what the new documents show versus the old 15 documents. That is something that should be reserved 16 for deliberation. 17 So we would object to their attempt to inject into this process now their version of the documents 18 that already have been admitted into evidence. 20 THE COURT: Wait a minute, counsel, what do you mean, "their version of the documents?" 21 MR. BERNICK: Because it's just their 22 23 documents, it's not the ones that we -- that we 24 submitted. 25 THE COURT: Well do you --STIREWALT & ASSOCIATES P.O. BOX 18188, MINNEAPOLIS, MN 55418 1-800-553-1953 CROSS-EXAMINATION - SCOTT L. ZEGER 5240 You can submit yours. 1 2. MR. BERNICK: Well this is the first time, Your Honor. This issue never -- this issue never got 3 raised, because this is the first time that we're now seeing they want to show these documents tomorrow. 5 We don't have our documents here. 6 7 THE COURT: I disagree with your analysis 8 of the purpose of this. Because of the nature of the 9 case, one of the purposes is to allow the jury to absorb what's happening in the case, and after all, 10 11 that's what we're here about, we're trying to educate the jury as to what the case is about. And we're 12 taking a day to allow them --13 14 Otherwise we could stop the proceedings and have the jury, each one of the jurors read through every 15 document as it's introduced, and sometimes that's 16 17 done if it's a small document. But that's not a very 18 practical solution. 19 I don't see any prejudice involved in allowing 20 the jury the opportunity to read the documents that have been introduced. I assume that they have the 21 right to have the jury read that and certainly that 2.3 you have just as much right to have the jury read 24 yours,, and I'm assuming that both their documents 25 and your documents are going to be available tomorrow STIREWALT & ASSOCIATES P.O. BOX 18188, MINNEAPOLIS, MN 55418 1-800-553-1953 CROSS-EXAMINATION - SCOTT L. ZEGER morning for the jury to review, and in addition to 1 that this later group of documents. And I don't see 2 3 anything improper, except I would strongly recommend that you have your documents here so they get a 5 chance to see yours, too. MR. BERNICK: Yeah, I understand that, Your 6 Honor, but this is -- I mean this is -- literally 7 just before we commenced here, this is the first 8 9 notice that we have had that they intend tomorrow to show their documents. It's going to be a real task 10 11 for us to get these things here tomorrow. 12 THE COURT: We already have them here.

Your documents are here already, aren't they? Don't 13 14 we have those? 15 MR. BERNICK: I believe we have a jury set 16 and an admitted set. I just don't know -- I'm not sufficiently in touch of the details of the logistics 17 18 to know what's involved in getting another set of 19 documents here. 20 THE COURT: Oh, counsel, I'm very confident 21 that you are capable of having your documents here so 22 the jury can see them. I really am. 23 MR. BERNICK: You have too much confidence 24 25 Let me come back to just what we're going to be STIREWALT & ASSOCIATES P.O. BOX 18188, MINNEAPOLIS, MN 55418 1-800-553-1953 CROSS-EXAMINATION - SCOTT L. ZEGER 5242 dealing with tomorrow. 1 THE COURT: Okay. 3 MR. BERNICK: I'm not urging that Your Honor reconsider this process, I'm really urging that 4 we get in touch with what I think this is all going 5 to amount to at the end of the day, because I don't 6 7 think it's very hard to see. There's no way it's going to be humanly possible -- you've got five boxes 8 9 of admitted documents already. Just the admitted 10 documents. You then have an additional one, two, three, four -- I think at least six new boxes of 11 documents that they have never seen before. So you 12 13 have a total of 11 boxes of documents. We're 14 probably talking about upwards of five hundred 15 documents. And to believe that this jury is going to 16 sit there and walk through those documents such that the individual members of this panel are truly 17 informed about the content of those documents and the 18 19 way that is meaningful for them I think is incredibly farfetched. Incredibly. If we were talking about 25 20 or 30 or 40 or 50 documents, it would be a totally 21 22 different proposition. 23 I think I know what's going on here, I think 24 everybody does as well. What's really happening here is that we're developing the ability of the state in 25 STIREWALT & ASSOCIATES P.O. BOX 18188, MINNEAPOLIS, MN 55418 1-800-553-1953 CROSS-EXAMINATION - SCOTT L. ZEGER 5243 closing argument to come back and to refer to the 1 vast volume of documents that we're dealing with, and to select any one of a number of documents in closing 3 to feature that was never the subject of testimony 5 because that testimony would have been impractical to 6 offer on a document-by-document basis. I think 7 that's really what this is all about. And the 8 problem is, if we can be assured that that's not 9 going to happen, I would be a happy guy and I think my clients would be much more satisfied with this 10 process, but I believe that's where this thing is 11 12 going, and that's why I would urge that after we get 13 done with this whole process, and maybe we have this 14 session tomorrow and we'll try to get our documents 15 here, that the court reserve on the issue of what use 16 will actually be made of documents that were never 17 the subject of testimony by a witness and have solely

been brought into this process through this 18 procedure, because I think it's highly prejudicial to 19 allow the use of these documents that have not been 20 21 supported by a tender of testimony. THE COURT: Okay. I expect that you'll 22 23 have the identical opportunity. MR. BERNICK: I'll have the what? 24 THE COURT: You'll have the identical 25 STIREWALT & ASSOCIATES P.O. BOX 18188, MINNEAPOLIS, MN 55418 1-800-553-1953 CROSS-EXAMINATION - SCOTT L. ZEGER 5244 1 opportunity. MR. BERNICK: I don't -- I don't believe, 2 3 Your Honor, that it's --4 Well we may have the same opportunity from a procedural point of view, but it doesn't help us very 5 much. And the reason it doesn't help us very much is 6 7 that we have the burden at the end of the day of 8 accounting for and responding to what they say about our conduct, and it is a difficult process to go back 9 over 40 years and, with respect to even single 10 documents, figure out what was happening at the time, 11 12 what the research was showing, what the purpose of the document was. For every one of these documents 13 14 we could conceivably have to introduce three or four and offer the testimony of a witness, and Your Honor, 15 this trial would never, never end. We're not going 16 17 to do that. 18 THE COURT: No, we know when the trial is 19 going to end. 20 MR. BERNICK: We know what Your Honor has 21 said. THE COURT: Yeah. 22 23 MR. BERNICK: We expect to abide by those 24 restrictions and we're prepared to do that. But that 25 is the real impact of this exercise, is that we will STIREWALT & ASSOCIATES P.O. BOX 18188, MINNEAPOLIS, MN 55418 1-800-553-1953 CROSS-EXAMINATION - SCOTT L. ZEGER not in fact be able to respond to all these documents 1 document by document, and that's the purpose of rules 2 and restrictions on the volume of information that 3 can be afforded and tendered to a jury, is to make it 4 5 a meaningful process, so that if a document comes up, we can have the opportunity, in fact, to respond. 6 7 So I come back, I'm not asking for relief on 8 this now, but I think that given the volume of what 9 we're dealing with here, we ought to revisit before 10 the close of the evidence what is the status of the 11 documents that have never been -- have never been 12 supported through the testimony of a sponsoring 13 witness. 14 THE COURT: All right. I'll be happy to 15 revisit it without representing anything. If you can show me that there's some prejudice that 16 17 accrues -- I'm having a little hard time figuring out how you would be prejudiced. But I'll -- I'll 18 19 revisit it. 20 MR. CIRESI: Your Honor, I'm not going to 21 be as long as Mr. Bernick was. Let me just point out 22 that yesterday with Dr. Glenn we had 40 years of CTR

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summaries put in, which I agreed could go in pursuant
    to a list of those documents, and they questioned him
24
    on one, and indeed they questioned him, I believe, on
25
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                                                    5246
    one page of one. The fact is we have a 40-year
 2
    course of conduct --
              THE COURT: I thought it was two pages, but
 3
 4
             MR. CIRESI: It may have been two pages.
 5
    There was 40 years of conduct, -- and I defer to Your
 6
7
    Honor's memory.
8
        We've got a 40-year course of conduct. We have
9
    taken documents which we believe span the course of
    those 40 years for all of the defendants. We've been
10
11
    a little bit at a loss with regard to American
    because of events that the court is actually aware
13
    of. These documents are going in, the jury gets an
    opportunity for a couple days to look at them. They
14
    have the same opportunity to do that. These aren't
15
    demonstrative documents or any of that nature, these
16
17
    are substantive documents which are being submitted,
    which they also have the right to do.
18
19
         If they're going to overload or the plaintiffs
20 are, then the jury will hold those parties
    accountable. We don't intend to do that.
21
              THE COURT: Okay. Are we done?
22
              MS. WIVELL: Good afternoon, Your Honor.
23
24
              THE COURT: Good afternoon.
25
              MS. WIVELL: I'm not sure that my mikes are
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                                                    5247
 1
    on here.
              THE COURT: Doesn't sound like it.
 2
              MS. WIVELL: No, it doesn't. Does that
 3
 4
    sound better?
 5
              THE COURT: Now it does.
              MS. WIVELL: Martha Wivell for the
 6
7
    plaintiffs, Your Honor.
8
         We would offer 3412.
9
              MR. BERNICK: 3412. I don't believe
10 there's an objection to that document. That's an RJR
11
    document.
12
              THE COURT: That will be received.
              MS. WIVELL: Your Honor, we would offer
13
14
    10001.
              MR. BERNICK: No objection.
15
              THE COURT: That will be received.
16
17
              MS. WIVELL: We would offer 10002.
18
              MR. BERNICK: A Lorillard document. I
19
    don't believe there is any objection.
20
              THE COURT: That will be received.
              MS. WIVELL: We would offer 10004.
21
              MR. BERNICK: Same, a Lorillard document,
22
23
   no objection.
24
              THE COURT: That will be received.
25
              MS. WIVELL: We offer 10005.
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1
              MR. BERNICK: No objection.
              THE COURT: That will be received.
              MS. WIVELL: We offer 10006.
 3
              MR. BERNICK: No objection.
 4
              THE COURT: That will be received.
 5
              MS. WIVELL: We offer 10015.
 6
7
              MR. BERNICK: Same, Lorillard, no
8
     objection.
9
              THE COURT: That will be received.
10
              MS. WIVELL: We offer 10017.
              MR. BERNICK: Same, no objection.
11
12
              THE COURT: It will be received.
              MS. WIVELL: We offer 10019.
13
14
              MR. BERNICK: No objection.
15
              THE COURT: It will be received.
              MS. WIVELL: We offer 10024.
16
17
              MR. BERNICK: No objection.
18
              THE COURT: Received.
19
              MS. WIVELL: We offer 10035.
              MR. BERNICK: 35.
20
              MS. WIVELL: I'm sorry, 36.
21
22
              MR. BERNICK: No objection.
23
              MS. WIVELL: Let me just be clear for the
24 record once more that that's 10036.
25
              THE COURT: Received.
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             CROSS-EXAMINATION - SCOTT L. ZEGER
                                                    5249
              MR. BERNICK: All right.
 1
 2
              MS. WIVELL: We offer 10038.
              MR. BERNICK: No objection.
 3
              THE COURT: Received.
 4
              MS. WIVELL: We offer 10039.
 5
              MR. BERNICK: No objection.
 6
              THE COURT: Received.
7
              MS. WIVELL: We offer 10096.
8
             MR. BERNICK: No objection.
9
10
             THE COURT: Received.
11
             MS. WIVELL: We offer 10102.
             MR. BERNICK: No objection.
12
              THE COURT: Received.
13
14
              MS. WIVELL: We offer 10103.
15
              MR. BERNICK: No objection.
              THE COURT: Received.
16
17
             MS. WIVELL: We offer 10105.
             MR. BERNICK: No objection.
18
19
              THE COURT: Received.
              MS. WIVELL: We offer 10107.
20
21
              MR. BERNICK: No objection.
22
              THE COURT: Received.
23
              MS. WIVELL: We offer 10108.
24
              MR. BERNICK: No objection.
25
              THE COURT: Received.
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             CROSS-EXAMINATION - SCOTT L. ZEGER
                                                    5250
 1
              MS. WIVELL: We offer 10112.
              MR. BERNICK: No objection.
 3
              THE COURT: Received.
```

```
4
              MS. WIVELL: We offer 10160.
 5
              MR. BERNICK: No objection.
              THE COURT: Received.
 6
7
              MS. WIVELL: We offer 10162.
              MR. BERNICK: No objection.
8
9
              THE COURT: Received.
              MS. WIVELL: We offer 10175.
10
              MR. BERNICK: No objection.
11
              THE COURT: Received.
12
13
              MS. WIVELL: Just one moment.
        We offer 10262.
14
15
             MR. BERNICK: 262. Is that PM document. I
16 don't believe there's any objection to it.
              THE COURT: Received.
17
18
              MS. WIVELL: We offer 10285.
19
              MR. BERNICK: Same.
              THE COURT: It's received.
20
21
              MS. WIVELL: We offer 10290.
              MR. BERNICK: No objection.
23
              THE COURT: Received.
24
              MS. WIVELL: We offer 10320.
              MR. BERNICK: A PM document, no objection.
25
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             CROSS-EXAMINATION - SCOTT L. ZEGER
                                                   5251
              THE COURT: Received.
1
              MS. WIVELL: We offer 10356.
 2.
              MR. BERNICK: No objection.
 3
 4
              THE COURT: Received.
5
              MS. WIVELL: Offer 10383.
              MR. BERNICK: Again, PM document, no
6
7
    objection.
              THE COURT: Received.
8
9
              MS. WIVELL: We offer 10417.
              MR. BERNICK: No objection.
10
              THE COURT: Received.
11
              MS. WIVELL: We offer 10422.
12
              MR. BERNICK: PM document, no objection.
13
14
              THE COURT: Received.
15
             MS. WIVELL: We offer 10423.
16
             MR. BERNICK: Same.
17
              THE COURT: Received.
              MS. WIVELL: We offer 10473.
18
19
              THE COURT: Received.
20
              MR. BERNICK: No objection.
21
              THE COURT: Sorry.
22
              MS. WIVELL: We offer 10476.
              MR. BERNICK: PM document, no objection.
23
24
              THE COURT: Received.
25
              MS. WIVELL: We offer 10478.
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             CROSS-EXAMINATION - SCOTT L. ZEGER
                                                    5252
 1
              MR. BERNICK: No objection.
              THE COURT: Received.
 2
 3
              MS. WIVELL: We offer 10553.
              MR. BERNICK: No objection.
 4
 5
              THE COURT: Received.
 6
              MS. WIVELL: We offer 10554.
7
              MR. BERNICK: No objection.
              THE COURT: Received.
```

```
9
              MS. WIVELL: We offer 10566.
10
              MR. BERNICK: PM document, no objection.
11
              THE COURT: Received.
              MS. WIVELL: We offer 10749.
12
              MR. BERNICK: 749. I don't have 10749.
13
14
              MS. WIVELL: All right, why don't we --
         I'm sorry, Your Honor, at this time I'd like to
15
16
    withdraw that offer.
17
         I would like to offer 10799.
              MR. BERNICK: No objection.
18
19
              THE COURT: Received.
20
              MS. WIVELL: I would offer -- like to offer
    10840.
2.1
22
              MR. BERNICK: No objection.
              THE COURT: Received.
23
2.4
              MS. WIVELL: I would like to offer 10841.
25
              MR. BERNICK: No objection.
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             CROSS-EXAMINATION - SCOTT L. ZEGER
                                                    5253
              THE COURT: Received.
 1
              MS. WIVELL: I would offer 10881.
 2.
 3
              MR. BERNICK: No objection.
              THE COURT: Received.
 4
 5
              MS. WIVELL: I would offer 10889.
              MR. BERNICK: No objection.
 6
7
              THE COURT: Received.
              MS. WIVELL: We offer 10908.
8
              MR. BERNICK: No objection.
9
10
              THE COURT: Received.
11
              MS. WIVELL: We offer 10930.
             MR. BERNICK: No objection.
12
              THE COURT: Received.
13
             MS. WIVELL: We offer 10945.
14
              MR. BERNICK: No objection.
15
              THE COURT: Received.
16
17
              MS. WIVELL: We offer 11072.
              MR. BERNICK: No objection.
18
19
              THE COURT: Received.
20
              MS. WIVELL: We offer 11077.
              MR. BERNICK: No objection.
21
              THE COURT: Received.
22
              MS. WIVELL: We offer 11127.
23
2.4
              MR. BERNICK: 11127. No objection.
25
              THE COURT: Received.
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             CROSS-EXAMINATION - SCOTT L. ZEGER
                                                    5254
              MS. WIVELL: We offer 11169.
 1
 2
              MR. BERNICK: No objection.
              THE COURT: Received.
 3
 4
              MS. WIVELL: Plaintiffs' offer 11190.
 5
              MR. BERNICK: No objection.
 6
              THE COURT: Received.
7
              MS. WIVELL: We offer 11277.
              MR. BERNICK: No objection.
8
9
              THE COURT: Received.
10
              MS. WIVELL: We offer 11290.
11
             MR. BERNICK: No objection.
12
             THE COURT: Received.
13
             MS. WIVELL: Plaintiffs offer 11330.
```

```
14
              MR. BERNICK: No objection.
15
              THE COURT: Received.
              MS. WIVELL: Plaintiffs offer 11419.
16
              MR. BERNICK: No objection.
17
              THE COURT: Received.
19
             MS. WIVELL: Plaintiffs offer 11420.
              MR. BERNICK: No objection.
20
21
              THE COURT: Received.
              MS. WIVELL: We offer 11539.
22
              MR. CORRIGAN: No objection.
23
24
              THE COURT: Received.
25
              MS. WIVELL: We offer 11540.
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             CROSS-EXAMINATION - SCOTT L. ZEGER
                                                   5255
              MR. CORRIGAN: No objection.
1
              THE COURT: Received.
 2.
3
              MS. WIVELL: We offer 11545.
              MR. CORRIGAN: No objection.
 4
              THE COURT: Received.
 5
              MS. WIVELL: Plaintiffs offer 11547.
 6
              MR. KELLY: No objection.
7
8
              THE COURT: Received.
              MS. WIVELL: Plaintiffs offer -- plaintiffs
9
10 offer 11548.
              MR. BERNICK: Same thing, it's yours.
11
              MR. KELLY: No objection.
12
              THE COURT: Received.
13
14
              MS. WIVELL: Plaintiffs offer 11559.
15
              MR. BERNICK: PM document, no objection.
              THE COURT: Received.
16
17
              MS. WIVELL: Plaintiffs offer 11602.
             MR. BERNICK: Same.
              THE COURT: Received.
19
             MS. WIVELL: Plaintiffs offer 11604.
20
              MR. BERNICK: Same.
21
              THE COURT: Received.
22
              MS. WIVELL: Plaintiffs offer 11627.
23
24
              MR. BERNICK: Same.
25
              THE COURT: Received.
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             CROSS-EXAMINATION - SCOTT L. ZEGER
                                                    5256
1
              MS. WIVELL: Plaintiffs offer 11633.
              MR. BERNICK: Same.
2.
3
              THE COURT: Received.
              MS. WIVELL: Plaintiffs offer 11681.
 4
              MR. CORRIGAN: No objection.
 5
 6
              THE COURT: Received.
              MS. WIVELL: We offer 11738.
7
              MR. BERNICK: PM document, I don't believe
8
9
    there's any objection.
10
              THE COURT: Received.
11
              MS. WIVELL: Plaintiffs offer 11739.
12
              MR. BERNICK: Same.
              THE COURT: Received.
13
              MS. WIVELL: Plaintiffs offer 11747.
14
15
              MR. BERNICK: Same.
16
              THE COURT: Received.
17
             MS. WIVELL: Plaintiffs offer 11746.
             MR. BERNICK: Same.
18
```

```
19
              THE COURT: Received.
20
              MS. WIVELL: Plaintiffs offer 11751.
21
              MR. BERNICK: Same.
22
              THE COURT: Received.
              MS. WIVELL: Plaintiffs offer 11752.
23
2.4
              MR. BERNICK: Same.
              THE COURT: Received.
25
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             CROSS-EXAMINATION - SCOTT L. ZEGER
                                                   5257
              MS. WIVELL: Plaintiffs offer 11773.
1
              MR. BERNICK: 77 what?
2.
              MS. WIVELL: Three. Two. Let me start
3
 4
    again.
5
         Plaintiffs offer 11772.
              MR. BERNICK: No objection. It's a PM
6
7
    document.
8
              THE COURT: Received.
9
              MS. WIVELL: Plaintiffs offer 11836.
              MR. BERNICK: Same.
10
              THE COURT: Received.
11
12
              MS. WIVELL: Plaintiffs offer 11898.
              MR. KELLY: No objection.
13
              THE COURT: Received.
14
15
             MS. WIVELL: Plaintiffs offer 11904.
             MR. KELLY: No objection.
16
              THE COURT: Received.
17
             MS. WIVELL: Plaintiffs offer 11905.
18
              MR. KELLY: No objection.
19
20
              THE COURT: Received.
21
              MS. WIVELL: We offer 11906.
              MR. KELLY: No objection.
22
              THE COURT: Received.
23
24
              MS. WIVELL: Plaintiffs offer 11937.
              MR. BERNICK: No objection.
2.5
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             CROSS-EXAMINATION - SCOTT L. ZEGER
                                                    5258
 1
              THE COURT: Received.
              MS. WIVELL: Plaintiffs offer 11946.
 2.
              MR. BERNICK: No objection.
 3
              THE COURT: Received.
 4
5
              MS. WIVELL: Plaintiffs offer 11972.
6
              MR. BERNICK: No objection.
7
              THE COURT: Received.
8
              MS. WIVELL: Plaintiffs offer 11982.
             MR. BERNICK: Excuse me. No objection.
9
10
              THE COURT: Received.
              MS. WIVELL: Plaintiffs offer 11984.
11
12
              MR. BERNICK: No objection.
13
              THE COURT: Received.
14
             MS. WIVELL: Plaintiffs offer 11985.
15
             MR. BERNICK: No objection.
16
              THE COURT: Received.
              MS. WIVELL: We offer 11992.
17
              MR. BERNICK: No objection.
18
19
              THE COURT: Received.
20
              MS. WIVELL: We offer 12014.
21
              MR. BERNICK: No objection.
22
              THE COURT: Received.
23
              MS. WIVELL: Plaintiffs offer 12016.
```

```
24
              MR. BERNICK: No objection.
25
              THE COURT: Received.
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             CROSS-EXAMINATION - SCOTT L. ZEGER
              MS. WIVELL: Plaintiffs offer 12028.
 1
              MR. BERNICK: That's wrong.
 2
              MS. WIVELL: I'm sorry, let me say that --
 3
     say that again. Plaintiffs offer 12024.
 4
              MR. BERNICK: No objection.
 5
              THE COURT: Received.
 6
7
              MS. WIVELL: Plaintiffs offer 12051.
              MR. BERNICK: No objection.
8
              THE COURT: Received.
9
10
              MS. WIVELL: Plaintiffs offer 18998.
              MR. BERNICK: 18 --
11
              MS. WIVELL: 18998.
12
13
              MR. BERNICK: No objection.
14
              THE COURT: Received.
15
              MS. WIVELL: That's all I have, Your Honor.
16
    Mr. Gordon will take over.
17
              MR. O'FALLON: Your Honor, can I just make
18
    sure about two exhibits?
19
              THE COURT: Yes.
20
              MR. O'FALLON: 10851. 10851.
              THE COURT: Yes?
21
              MR. O'FALLON: Was that admitted?
22
              THE COURT: I don't show it.
23
24
              MR. O'FALLON: And also, Your Honor, 10749.
25
              MR. BERNICK: 10749? That was withdrawn.
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             CROSS-EXAMINATION - SCOTT L. ZEGER
                                                    5260
              MR. O'FALLON: Okay. Thank you.
1
              MR. GORDON: Good afternoon, Your Honor.
 2
    Corey Gordon on behalf of the plaintiffs.
 3
         Plaintiffs offer Trial Exhibit 12060. It's a
 4
 5
    B.A.T document.
              MR. BERNICK: No objection.
 6
7
              THE COURT: Received.
              MR. GORDON: Plaintiffs offer 12077.
8
              MR. BERNICK: No objection.
9
10
              THE COURT: Received.
11
              MR. GORDON: Plaintiffs offer 12128.
              MR. BERNICK: No objection.
12
13
              THE COURT: Received.
             MR. GORDON: Plaintiffs offer 12136.
14
              MR. BERNICK: No objection.
15
16
              THE COURT: Received.
17
              MR. GORDON: Plaintiffs offer 12148.
18
              MR. BERNICK: No objection.
19
              THE COURT: Received.
20
              MR. GORDON: Plaintiffs offer 12176.
21
              MR. BERNICK: No objection.
22
              THE COURT: Received.
              MR. GORDON: Plaintiffs offer 12178.
23
24
              MR. BERNICK: No objection.
              THE COURT: Received.
25
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             CROSS-EXAMINATION - SCOTT L. ZEGER
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5261

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MR. GORDON: Plaintiffs offer 12337.
 1
              MR. BERNICK: No objection.
 2.
 3
               THE COURT: Received.
               MR. GORDON: Plaintiffs offer 12367.
 4
 5
               MR. BERNICK: There is an objection to
     that. It's an RJR document. RJR has a hearsay
 6
 7
     objection to this. This is 12367, it's a document
 8
     written by Teague, but it was not in connection with
 9
    his employment. He was taking an outside course,
10
     taking a course. And they have preserved their
     foundation objection, Your Honor.
11
              MR. GORDON: Your Honor, this is a document
12
     authored by an employee of R. J. Reynolds, it's
13
14
     stamped "RJR SECRET" at the top, it's sent to Mr. R.
15
     A. Blevins, Jr. of the marketing research department
16
     at R. J. Reynolds, it concerns pH of cigarettes.
     Claude Teague, of course, is an R. J. Reynolds
17
     scientist. It was produced from the files of R. J.
18
19
     Reynolds. It is an 801(d)(2) document. It is not
20
     hearsay.
21
               THE COURT: Received.
               MR. BERNICK: Your Honor, just to be clear
22
23
     on the record, I want to make sure --
24
               THE COURT: I'm sorry, go ahead.
25
               MR. BERNICK: I want to make sure this is a
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              CROSS-EXAMINATION - SCOTT L. ZEGER
    Reynolds document, not my client's. Mr. Teague was
 1
     taking a course. This was a personal document. It's
 2
     not something that fits within the scope of his
     employment activities; therefore, it cannot
     constitute an admission of a party and it would be
 5
 6
     hearsay.
 7
               THE COURT: Received.
 8
              MR. GORDON: Your Honor, plaintiffs offer
 9
     12368. It's an RJR document.
10
               MR. BERNICK: I'm sorry, which one?
11
               MR. GORDON: 12368.
12
              MR. BERNICK: I don't believe there's any
13
     objection to that.
               THE COURT: Received.
14
15
              MR. GORDON: Plaintiffs offer 12409.
16
              MR. BERNICK: Same.
              THE COURT: Received.
17
              MR. GORDON: Plaintiffs offer 12421.
18
              MR. BERNICK: No objection to that.
19
20
              THE COURT: Received.
              MR. GORDON: Plaintiffs offer 12428.
21
22
              MR. BERNICK: Same, no objection.
23
              THE COURT: Received.
24
               MR. GORDON: Plaintiffs offer 12447.
25
               MR. BERNICK: No objection.
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              CROSS-EXAMINATION - SCOTT L. ZEGER
                                                     5263
 1
               THE COURT: Received.
              MR. GORDON: Plaintiffs offer 12480.
 2
 3
              MR. BERNICK: No objection.
              THE COURT: Received.
```

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5
              MR. GORDON: Plaintiffs offer 12618.
              MR. BERNICK: That's a Reynolds document,
6
7
    no objection.
8
              THE COURT: Received.
              MR. GORDON: Plaintiffs offer 12715.
9
              MR. BERNICK: No objection.
10
              THE COURT: Received.
11
              MR. GORDON: Plaintiffs offer 12747.
12
              MR. BERNICK: Same, no objection.
13
              THE COURT: Received.
14
              MR. GORDON: Plaintiffs offer 12844.
15
              MR. BERNICK: Same, no objection.
16
17
              THE COURT: Received.
              MR. GORDON: Plaintiffs offer 12885.
18
              MR. BERNICK: Same, no objection.
19
20
              THE COURT: Received.
              MR. CORRIGAN: Excuse me, Mr. Gordon, I
2.1
22
    think you said --
23
              THE COURT: Sorry?
24
              MR. CORRIGAN: I think you said 844 when
25
    you meant 884, just so the record is clear.
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             CROSS-EXAMINATION - SCOTT L. ZEGER
1
              MR. GORDON: Thank you. The record should
 2
    be 12844.
              THE COURT: 12844 is what I had.
 3
              MR. CORRIGAN: Well then that's -- I don't
 4
    see that on my list.
 5
              MR. GORDON: It's an RJR document.
 6
7
              MR. BERNICK: Right.
8
              MR. CORRIGAN: Yeah.
              MR. BERNICK: 1981 objectives.
9
              MR. CORRIGAN: 1981 objectives.
10
              MR. GORDON: Nineteen -- no.
11
              MR. BERNICK: Then we got a --
12
              MR. GORDON: It's a 1980 document, Ames
13
14 test on ammoniated tobacco.
15
              MR. BERNICK: We don't -- we don't have
16 that on the list, Corey. We have 884 but not 844.
17
              MR. GORDON: That's presumably a
    typographical error.
18
             MR. CORRIGAN: Mr. Fribley points out to me
19
   the February 12th revised list does seem to have that
2.0
2.1
    number on it, but not the 12884 number. Are you
22
    going to offer 12884 as well?
23
              MR. GORDON: Not today.
24
              THE COURT: Okay. So your list does show a
25
    12844; correct?
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             CROSS-EXAMINATION - SCOTT L. ZEGER
                                                    5265
1
              MR. CORRIGAN: On the list attached to the
    letter of February 12th.
 2
              MR. BERNICK: That was an earlier list;
 3
 4
    right?
              MR. CORRIGAN: It was an earlier list.
 5
              MR. BERNICK: There's a difference between
 6
 7
    the lists, at least a difference in -- my list is
   different from what's here. I don't know which one
    the right one is. I'm not in a position to respond
```

```
to 844. I don't even know what the document is. And
11
    I don't even know if it's my client's document, Your
12
    Honor. We can track that down.
              THE COURT: Whose document is it?
13
              MR. GORDON: It's an RJR document, and they
14
15 did not assert a foundation objection when this
    document was first identified.
16
              THE COURT: Okay. And it was on the list.
17
18
              MR. GORDON: It was on our February 12th
19
    list.
              MR. BERNICK: Whatever Your Honor's
20
    determination, just to make it clear, I don't have
21
    Reynolds authority to speak to that document. It's
2.2
23
    not on my list.
              THE COURT: I do. Received.
24
25
              MR. GORDON: Plaintiffs offer 12885.
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             CROSS-EXAMINATION - SCOTT L. ZEGER
                                                   5266
              MR. BERNICK: 12885?
1
              MR. GORDON: Right.
 2
              MR. BERNICK: I thought that was already
 3
    checked off.
 4
              MR. GORDON: Oh, I -- did -- okay. I may
 5
    have gone back. I apologize.
 6
         Plaintiffs offer 12897.
7
              MR. BERNICK: It's an RJR document. I
8
    don't believe there's any objection.
9
10
              MR. GORDON: Plaintiffs offer 13067.
11
              MR. O'FALLON: Your Honor, can we just have
12
    a clarification on whether 12885 was in fact
13
    admitted?
              THE COURT: 12885 has been introduced
14
15
    twice.
16
              MR. BERNICK: Right.
              THE COURT: It's been received only once,
17
    but that will take care of it. All right.
18
19
              MR. GORDON: 13067.
              MR. BERNICK: 13067 is a Reynolds document.
2.0
21 I don't believe there is any objection.
22
              THE COURT: Received.
              MR. GORDON: Plaintiffs offer 13073.
23
              MR. BERNICK: Again, same.
24
25
              THE COURT: Received.
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              MR. GORDON: Plaintiffs offer 13188.
 1
              MR. BERNICK: No objection.
 2
              THE COURT: Received.
 3
 4
              MR. GORDON: Plaintiffs offer 13229.
 5
              MR. BERNICK: A Reynolds document. I don't
 6
    believe there's any objection.
7
              THE COURT: Received.
              MR. GORDON: Plaintiffs offer 13426.
 8
              MR. BERNICK: No objection.
9
10
              THE COURT: Received.
11
              MR. GORDON: Plaintiffs offer 13432.
12
              MR. BERNICK: No objection.
13
              THE COURT: Received.
14
              MR. GORDON: Plaintiffs offer 13478.
```

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15
              MR. BERNICK: No objection.
16
              THE COURT: Received.
17
              MR. GORDON: Plaintiffs offer 13481.
18
              MR. BERNICK: No objection.
              THE COURT: Received.
19
20
             MR. GORDON: Plaintiffs offer 13482.
              MR. BERNICK: No objection.
21
              THE COURT: Received.
22
              MR. GORDON: Plaintiffs offer 13488.
23
              MR. BERNICK: No objection.
24
25
              THE COURT: Received.
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             CROSS-EXAMINATION - SCOTT L. ZEGER
                                                    5268
1
              MR. GORDON: Plaintiffs offer 13490.
              MR. BERNICK: No objection.
 2.
              THE COURT: Received.
 3
              MR. GORDON: Plaintiffs offer 13502.
              MR. BERNICK: No objection.
5
              THE COURT: Received.
 6
              MR. GORDON: Plaintiffs offer 13529.
7
    Excuse me. Well yes, we do offer 13529.
8
              MR. BERNICK: No objection.
9
              THE COURT: Received.
10
11
              MR. GORDON: For those who are following
12 the order, I jumped. We also offer 13518.
              MR. BERNICK: No objection.
13
              THE COURT: Received.
14
15
              MR. GORDON: Plaintiffs offer 13553.
16
              MR. BERNICK: No objection.
17
              THE COURT: Received.
              MR. GORDON: Plaintiffs offer 13574.
18
             MR. BERNICK: No objection.
              THE COURT: Received.
20
              MR. GORDON: Plaintiffs offer 13583.
21
              MR. BERNICK: No objection.
22
              THE COURT: Received.
23
2.4
              MR. GORDON: Plaintiffs offer 13591.
25
              MR. BERNICK: No objection.
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                                                    5269
1
              THE COURT: Received.
 2.
              MR. GORDON: Plaintiffs offer 13608.
              MR. BERNICK: No objection.
3
              THE COURT: Received.
              MR. GORDON: Plaintiffs offer 13633.
5
              MR. BERNICK: No objection.
 6
7
              THE COURT: Received.
              MR. GORDON: Plaintiffs offer 14026.
8
              MR. BERNICK: That's a Lorillard document.
9
10 I don't believe there's any objection.
11
              THE COURT: Received.
12
              MR. GORDON: Plaintiffs offer 14029.
              MR. BERNICK: Same.
13
              THE COURT: Received.
14
15
              MR. GORDON: Plaintiffs offer 14071.
16
              MR. BERNICK: We won't object to that.
17
              THE COURT: Received.
18
             MR. GORDON: Plaintiffs offer 14079.
             MR. BERNICK: No objection.
19
```

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20
              MR. GORDON: Plaintiffs offer 14085.
21
              MR. BERNICK: No objection.
22
              THE COURT: Received.
23
              MR. GORDON: Plaintiffs offer 14096.
              MR. BERNICK: No objection.
24
25
              THE COURT: Received.
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              MR. GORDON: Plaintiffs -- I'm sorry.
 1
         Plaintiffs offer 14198.
              MR. BERNICK: No objection.
 3
              THE COURT: Received.
 4
              MR. GORDON: Plaintiffs offer 14209.
 5
 6
              MR. BERNICK: No objection.
7
              THE COURT: Received.
              MR. GORDON: Plaintiffs offer 14212.
8
9
              MR. BERNICK: No objection.
10
              THE COURT: Received.
             MR. GORDON: Plaintiffs offer 14213.
11
              MR. BERNICK: No objection.
12
13
              THE COURT: Received.
             MR. GORDON: Plaintiffs offer 14214.
14
15
             MR. BERNICK: No objection.
16
             THE COURT: Received.
             MR. GORDON: Plaintiffs offer 14215.
17
              MR. BERNICK: No objection.
18
              THE COURT: Received.
19
              MR. GORDON: Plaintiffs offer 14216.
20
21
              MR. BERNICK: No objection.
22
              THE COURT: Received.
              MR. GORDON: Plaintiffs offer 14217.
23
              MR. BERNICK: No objection.
24
25
              THE COURT: Received.
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                                                    5271
 1
              MR. GORDON: Plaintiffs offer 14218.
              MR. BERNICK: No objection.
              THE COURT: Received.
 3
              MR. GORDON: Plaintiffs offer 14247.
 4
              MR. BERNICK: No objection.
 5
 6
              THE COURT: Received.
7
              MR. GORDON: Plaintiffs offer 14248.
              MR. BERNICK: No objection.
8
9
              THE COURT: Received.
              MR. GORDON: Plaintiffs offer 14273.
10
              MR. BERNICK: No objection.
11
              THE COURT: Received.
12
              MR. GORDON: Plaintiffs offer 17762.
13
14 American.
15
              MR. BERNICK: Yeah, I know.
         No objection.
16
17
              THE COURT: Received.
              MR. GORDON: Plaintiffs offer 17763.
18
              MR. BERNICK: No objection.
19
20
              THE COURT: Received.
21
              MR. GORDON: Plaintiffs offer 17764.
22
              MR. BERNICK: No objection.
23
              THE COURT: Received.
24
             MR. GORDON: Plaintiffs offer 17765.
```

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25
               MR. BERNICK: No objection.
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             CROSS-EXAMINATION - SCOTT L. ZEGER
                                                     5272
 1
               THE COURT: Received.
              MR. GORDON: Plaintiffs offer 17776.
 2.
              MR. BERNICK: Hang on.
 3
              MR. GORDON: B.A.T.
 4
 5
              MR. BERNICK: I know.
         No objection.
 6
 7
               THE COURT: Received.
              MR. GORDON: Plaintiffs offer 17825.
 8
              MR. BERNICK: No objection.
9
               THE COURT: Received.
10
11
              MR. GORDON: Plaintiffs offer 17852.
              MR. BERNICK: Yeah, we object to this, Your
12
13
    Honor. This is a Lexis Nexis printout of an article
    that apparently appeared on June 22, 1994 in the Home
15
    News Section for the PA News? It says a Press
    Association News File.
16
          So it's a hearsay document. This purports to
17
    quote a B.A.T spokesperson, it purports to quote what
18
19
    Kessler has said, that's former FDA Commissioner
    Kessler, and a whole bunch of other people.
20
21
              MR. GORDON: The whole bunch of other
    people include people from B.A.T Industries talking
22
    about Y1. This document was produced from the files
23
24
    of Brown & Williamson.
25
              MR. BERNICK: It's still a hearsay -- it's
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    a hearsay document, not within any exception. A
    newspaper article is a newspaper article is a
 3
    newspaper article. It ought not come before this
 4
     jury.
               THE COURT: Well there are exceptions to
 5
 6
     that. Whose newspaper is it?
 7
              MR. GORDON: Well it's a Lexis printout.
 8
               THE COURT: PA?
              MR. GORDON: Apparently something called
9
10
    the Press Association Limited, and the byline is
11
    Finley Marshall, PA News. I suspect the fact that it
12
    says "Limited" suggests that it was probably a
    British article that B&W was interested in pulling to
13
14
    see what its comrades in England were saying about
15
    Y1. Because that is indeed what the story is about,
16
     it's a quotation of B.A.T Industries, and in fact the
17
    highlighting on it, underlined, which means that was
    the search term that was being used, is "B.A.T
18
19
    Industries." So when B&W's personnel searched the
20
    Lexis database using the key term "B.A.T Industries,"
21
    this is what they came up with. They put it in their
22
    files.
23
          If in fact it is hearsay, and I question whether
24
    it is, but if it is, then it's certainly notice to
    B.A.T of what its sister corporation or parent -- I
25
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                                                     5274
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guess B.A.T Industries is the parent -- was saying
 1
    about Y1 in 1994.
 2.
 3
              MR. BERNICK: Your Honor, if there had been
 4
    a foundation laid for this document through some
    testimony to establish, as was done with their
 5
    witness on the stand, that a quote that appeared in
 6
    the newspaper and the like was an appropriate quote,
 7
    it would be a different proposition, but just because
9
    a newspaper article appears in our files doesn't
10
    solve the hearsay problem.
              THE COURT: Yeah. I'm a little troubled
11
12
    with that. Sustained.
              MR. GORDON: Plaintiffs offer 17865.
13
14
              MR. BERNICK: 17865.
15
         No objection.
16
               THE COURT: Received.
17
              MR. GORDON: Plaintiffs offer 18028.
18
              MR. BERNICK: That's a PM document. I
19
    don't believe there's any objection.
20
              MR. GORDON: Plaintiffs --
21
              THE COURT: Received.
              MR. GORDON: -- offer 18105.
22
23
              MR. BERNICK: No objection.
24
              THE COURT: Received.
25
              MR. BERNICK: It's a PM document.
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                                                    5275
              MR. GORDON: Plaintiffs offer 18116.
 1
 2
              MR. BERNICK: Same.
              THE COURT: Received.
 3
 4
              MR. GORDON: Plaintiffs offer 18122.
              MR. BERNICK: Same.
 5
              THE COURT: Received.
 6
              MR. GORDON: Plaintiffs offer 19299.
7
              MR. BERNICK: No objection.
8
              THE COURT: Received.
9
              MR. GORDON: Plaintiffs offer 19300.
10
11
              MR. BERNICK: No objection.
12
              THE COURT: Received.
13
              MR. BERNICK: Your Honor, in an effort to
    expedite this process, number one, I think we have
14
    some information on the TI documents.
15
16
              THE COURT: All right.
17
              MR. BERNICK: And number two is that I
18
    believe that with regard to the balance of these
19
    documents, that there are no other objections that we
20
    have. Maybe we can have an offer that is in bulk.
21
    But then I would like to make a further statement
22
    regarding the status of our objections at the
23
    conclusion of that process. But maybe if you just
24
    have got a whole list of all the remaining numbers,
25
    we can keep track and maybe have a group offer.
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                                                     5276
              MR. CIRESI: Why don't we just read them
 1
 2
    into the record as received, then, if there are no
     objections, and then you can make your statement.
 3
         But there were three documents, I believe, Your
    Honor, that I'm not sure if we got a received on the
```

```
record, and those were documents for which there were
 6
7
    no objections, 12897, 14 --
              MR. BERNICK: Hang on. Hang on here.
8
9
    12897.
              MR. CIRESI: Correct.
10
              MR. BERNICK: I have that marked as in.
11
              MR. CIRESI: Well there just wasn't on the
12
13
    record a "received."
              MR. BERNICK: Okay.
14
15
              MR. CIRESI: But there was no objection.
              THE COURT: All right. Received.
16
17
              MR. BERNICK: And 14079, again no
18
    objection.
              THE COURT: Well I show it received, but --
19
20
               MR. CIRESI: Okay.
21
              THE COURT: We'll receive it again.
              MR. CIRESI: And 18028.
2.2
23
              MR. BERNICK: It's the same.
24
              THE COURT: It's received.
              MR. CIRESI: Okay.
25
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                                                    5277
              MR. GORDON: Are there any objections to
1
    the TI documents, the four TI documents?
              MR. BERNICK: No. And just so we're clear,
 3
    that's 14334, 14350, 14384, and 14465.
 4
              THE COURT: They will be received.
 5
 6
              MR. O'FALLON: There was also -- excuse me.
7
    There was also 18302; wasn't there?
              MR. BERNICK: 18302. I don't know what the
8
9
    status of 18302 is. We didn't check on that one.
10
    Was that another one?
              MR. O'FALLON: That was, I believe, the
11
12
     last one of that series.
13
              THE COURT: Yeah, that was noted.
              MR. BERNICK: I'll tell you what, why
14
15
    don't -- why doesn't the court provisionally receive
16
    it, and then maybe over the evening we can check that
17
    out and make sure the court knows.
18
              MR. CIRESI: That's satisfactory.
              THE COURT: Okay, we'll do that.
19
20
              MR. BERNICK: You got that number, 18302.
21
              THE COURT: 18302 will be provisionally
22
    received.
23
              MR. GORDON: For the record, then, I will
24
    move the following documents admitted into evidence
25
    on behalf of plaintiffs: Exhibit 10007, 10488,
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              CROSS-EXAMINATION - SCOTT L. ZEGER
                                                    5278
 1
    10547 --
 2
              MR. BERNICK: Wait. Just bear with me.
 3
    10488?
              MR. GORDON: You want me to take them one
 4
 5
    at a time?
              MR. BERNICK: Yeah. Just give me the list.
 6
7
    I need a chance to flip pages.
 8
              MR. GORDON: Okay.
9
              MR. BERNICK: Go ahead.
10
              MR. GORDON: 10547, 10836, 11170, 11357 --
```

```
MR. BERNICK: Hang on. Okay.
11
               MR. GORDON: 11744, 12171, 12366, 12507,
12
     12857, 13139, 13213, 13531, 13540, 14034, 17777. The
13
14
     last group, 10193, 10329, 10467, 10520, 10555, 10585,
     10589, 10590, 11350, 11405, 11618, 11632, 11702,
15
16
     11723, 12095, 12242, 12484, 12560, 12776, 12920,
     12938, 12939, 13060, 13083, 13129, 13153, 13176,
17
     13198, 13245, 13267, 13286, 13499, 13503, 13652,
18
     13657, 13760, 13973, 13983, 14465 and 18239.
19
20
              MR. BERNICK: Is that it?
               MR. GORDON: We also have -- if I
21
22
     overlooked it, I intended to read 12113.
23
              MR. BERNICK: You did.
              MR. GORDON: Okay. We offer that one. And
24
25
    we also offer 10851.
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                                                     5279
 1
              MR. BERNICK: I have that one as already
     being in. And with regard to the balance, Your
 2
     Honor, that were read by Mr. Gordon seriatim, on
 3
     behalf of my client we have no objections. I
 4
 5
     understand that with regard to the other parties,
 6
     they do not have objections either.
 7
              THE COURT: Those will be received into
     evidence.
 8
              MR. BERNICK: Okay. This is all
9
     subject -- I'd like just, Your Honor, to make clear
10
11
     on the record that we do have the objections that
12
     were made prior to Your Honor's issuance of the order
     governing this procedure, and obviously we preserve
13
14
     those objections. We understand that Your Honor has
     ruled. And I further do have the objection that this
15
    material is cumulative, and this afternoon as we've
16
17
     gone through, there's been no record justification of
18
     these incremental documents, and we therefore
     specifically preserve the objection that these
19
20
     incremental exhibits are in fact cumulative and
21
     should not come before the jury.
22
              THE COURT: The record will show that.
23
               MR. GORDON: Thank you, Your Honor.
               MR. CIRESI: I believe that's it, Your
24
25
    Honor.
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                                                     5280
 1
               THE COURT: All right. Then tomorrow
     morning we'll bring the jury in at 9:30. I will give
 3
     them a brief instruction and I will then retire. The
 4
     jury will then have the documents available
 5
     throughout the entire day for review. You can
 6
     designate your two people and have the counsel tables
 7
     available for use by the jury.
 8
          The jury will be taking a longer-than-usual
     lunch period tomorrow. They've asked the opportunity
 9
10
     to go to someplace outside of being in the building,
     which I granted, and so that they can have one of
11
12
     these luxurious lunches that counsel have every day.
13
     And so they'll recess from about 12:00 to 2:00.
14
     That's just for your information. And then we expect
15
     they'll also have a recess in the morning and the
```

```
16
    afternoon, as usual, 15 minutes. They'll go back to
17
    their own jury room and the clerk will escort them
    back. All right?
18
19
              MR. CIRESI: Very good, Your Honor. Thank
20
    you.
21
              THE COURT: Yes. Anything further?
              MR. O'FALLON: Your Honor, just as a matter
22
23 of procedure, my suggestion would be that someone
    remain from the defendants and we just go through the
24
25
    boxes so that the defendants and the plaintiffs agree
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                                                   5281
    that these are the right documents.
2
              THE COURT: I would appreciate that if that
    could be done. All right.
3
              MR. CIRESI: Thank you.
4
5
              THE COURT: We will recess until tomorrow
6 morning.
7
              MR. CIRESI: Good evening, Your Honor.
              THE CLERK: Court stands adjourned.
8
9
              (Recess taken.)
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
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